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BOTANICAL SERIES VOL. XI, No. 5

STUDIES OF AMERICAN PLANTS—VI

BY

PAUL C. STANDLEY
ASSOCIATE CURATOR OF THE HERBARIUM, DEPARTMENT OF BOTANY

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STUDIES OF AMERICAN PLANTS—VI

Paul C. Standley

Like some of the former papers of this series, the present one is devoted principally to studies of tropical American and especially South American Rubiaceae. During past years the writer has been fortunate in having temporarily for study several thousand sheets of South American plants of this family, lent to Field Museum of Natural History by European herbaria.

The most important of these sendings came from the Delessert Herbarium of Geneva, through the kindness of Dr. J. I. Briquet. This loan consisted largely of material already more or less critically determined, and while it did not reveal many novelties, it supplied numerous species that the writer never had seen previously, and consequently it facilitated a more accurate determination of certain material in the herbarium of Field Museum and of that received from other institutions.

Other sendings of large extent were received, as noted in the last preceding paper of the present series, from the following European herbaria: Botanical Garden and Museum, Berlin-Dahlem, through the courtesy of the Director, Dr. L. Diels, and of Dr. K. Krause, custodian of the Rubiaceae of the Berlin Museum; Riksmuseet, Botaniska Afdelning, Stockholm, lent by Dr. Gunnar Samuelsson; Museum of Natural History, Paris, through the Director; Jardin Principal Botanique, Leningrad, submitted by the Director, and through the interest of Dr. Georges Woronow; Royal Botanic Gardens, Kew, transmitted by the Director, Sir Arthur W. Hill. These loans were composed almost wholly of undetermined Rubiaceae, and they amounted to many hundreds of sheets. Although consisting largely of recent collections, they included, especially the shipments from Leningrad, Kew, and Paris, innumerable old specimens, some of which were collected more than a century ago. These, after having remained so long without critical attention, were found to be almost as rich in new species as the more recent collections submitted by Stockholm and Berlin.

To the curators of the herbaria mentioned the writer wishes to express his sincere thanks for the loan of so much valuable and taxonomically interesting material, whose shipment to Chicago involved a great amount of clerical and other labor. This, it is to

be hoped, has been repaid in part by the determinations added to the sheets. The loans are an illustration of the fine spirit of cooperation shown in recent years by the curators of European herbaria to American students of the tropical American flora.

There have been received from the United States National Herbarium, through Dr. William R. Maxon and Ellsworth P. Killip, duplicates and unique specimens obtained by various recent expeditions, which, naturally enough, contained Rubiaceae that were new or otherwise important. The collection richest in this respect was the one made recently in Brazil and Venezuela by E. G. Holt.

Further study of the Peruvian series of Dr. A. Weberbauer, G. Tessmann, and Llewelyn Williams has discovered additional new species of Rubiaceae, especially from the Amazon Valley. Evidently that region of Peru is still far from exhaustion botanically. Likewise, the older collections procured in Colombia by Triana, Goudot, and others have added to the list of Rubiaceae already published for that country by the writer.

Whoever inspects the two unwieldy volumes of the *Flora Brasiliensis* that are devoted to the Rubiaceae may believe that the rubiaceous flora of Brazil is well known, but the extensive recent gatherings from that country represented at Stockholm, Kew, Berlin, and elsewhere, lead one to suspect that the end is not yet in sight. Western Brazil, still practically unknown, undoubtedly will add hundreds of undescribed Rubiaceae to embarrass the student of the Brazilian flora.

The relatively few pages devoted here to plants other than Rubiaceae are occupied with notes and descriptions of plants of miscellaneous groups. A number of new Peruvian Amaranthaceae are described.

GRAMINEAE

Luziola Spruceana Benth.—This aquatic grass has not been reported from Central America or from continental North America. A single collection has been seen by the writer: Honduras: Lake Yojoa, Pito Solo, alt. 600 meters, growing in 1 meter of water, *J. B. Edwards AQ*[4].

CYCLANTHACEAE

Carludovica Williamsii, sp. nov.—Terrestris; folia graciliter petiolata, lamina basi acute attenuata fere ad basin bifida, segmentis linearibus integris longe attenuatis 35–40 cm. longis 1–1.5 cm. latis

suberectis c. 8-nerviis et valde plicatis, lamina simplicinervia; pedunculus gracilis 20 cm. longus et ultra rectus vel paullo flexuosus; spathae 2 c. 7 cm. longae oblongo-lanceolatae longiattenuatae; spadix parvus oblongus crasse 5–8 mm. longe stipitatus c. 2 cm. longus et 8 mm. latus pauciflorus.—Peru: San Roque, Dept. San Martín, alt. 1,400 meters, January 16, 1930, growing in humid loam on stream banks, the plants about 45 cm. high, *Llewelyn Williams 7477* (herb. Field Mus. No. 621,023, type).

Vernacular name, "yacu-sisa."

BROMELIACEAE

Pitcairnia puyoides L. B. Smith, sp. nov., e fragmentis solum cognita, valida, verisimiliter plus quam metralis: foliis 9 dm. longis; vagina late ovata, 7 cm. longa, atro-castanea, lucida, supra glabra, subtus dissite minuteque sordido-floccosa; lamina lineari-lanceolata, acuminata, 33 mm. lata, ad basin versus paulo attenuata sed vix petiolata, spinis rectis gracilibus atro-castaneis ad 3 mm. longis dense armata, pungenti, mox glabra: scapo erecto, 15 mm. diametro, subglabro; scapi bracteis suberectis, foliaceis, densissime imbricatis: inflorescentia composita, minutissime floccosa, mox glabra: racemis laxe florigeris, 15–21 cm. longis; rhachi valida, ea racemorum lateralium ad basin versus valde complanata; bracteis florigeris ovatis, acuminatis, quam pedicelli subduplo brevioribus; floribus suberectis vel divergentibus; pedicellis gracilibus, 15–20 mm. longis; sepalis asymmetrice ovatis, acutis, 24 mm. longis, 8 mm. latis, crasse coriaceis; petalis ligulatis, 6 cm. longis, nudis, lacteis; staminibus inclusis; ovario pyramidato, ⅔ supero; ovulis caudatis.—Peru: San Martín, epiphytic in forest, Zepelacio, near Moyobamba, alt. 1,200–1,600 meters, 1934, *Klug 3547* (Gray Herb., type).

In Mez's key to *Pitcairnia* in the *Pflanzenreich* this species comes next to *P. tarapotensis*, but is utterly different in floral details and in habit. In fact, the stout habit, coarse broad sepals, and large whitish petals are much more reminiscent of the genus *Puya* than of a typical *Pitcairnia* like *P. tarapotensis*. However, the partially inferior ovary and caudate-appendaged ovules place it definitely in *Pitcairnia*.

PIPERACEAE

Piper san-juananum Trelease, sp. nov.—Frutex?, internodiis fertilibus brevibus et crassiusculis laxe pallido-villosis; folia oblique lanceolato-elliptica acute acuminata, basi inaequilatera et obtusa vulgo uno latere cordulata, 12–16 cm. longa 4–6.5 cm. lata e dimidio inferiore penninervia, rugosa, supra basibus pilorum mollium alborum scabra, nervis subtus hirsutis; petiolus 1 cm. longus subtus villosus, tantum ad basin vaginans; spicae 80–90 mm. longae 3 mm. crassae acuminatae pallidae; pedunculus fere nullus 2 mm. longus et 2 mm. crassus plus minusve pilosus; bracteae rotundato-subpeltatae;

baccae oblongae; stigmata 3, minuta.—Salvador: San Juan de Tepezontes, in 1929, *Dr. Salvador Calderón 2539* (herb. Field Mus. No. 603,261, type).

Piper tepezontesense Trelease, sp. nov.—Frutex?, plus minusve nodosus, nervis subtus puberulis exceptis glaber, internodiis fertilibus subgracilibus breviusculis; folia elliptica subcaudato-acuminata basi acuta, 12–15 cm. longa 5–7.5 cm. lata, e dimidio inferiore penninervia, in statu sicco modice tenuia et obscure rugosa, supra lucido-viridia subtus pallidiora; petiolus circa 10 mm. longus tantum ad basin vaginans striato-puberulus; spicae 80–120 mm. longae 3 mm. crassae, acuminato-mucronatae; pedunculi breves vix 5 mm. longi; bracteae lunulato-subpeltatae; baccae subquadratae umbilicatae; stigmata 3 sessilia.—Salvador: San Juan de Tepezontes, in 1929, *Dr. Salvador Calderón 2543* (herb. Field Mus. No. 603,259, type); also *No. 2541* from the same locality.

OLACACEAE

Heisteria eurycarpa, sp. nov.—Frutex omnino glaber, ramulis gracillimis subteretibus brunneis, internodiis 1.5–3 cm. longis; folia parva petiolata tenuiter coriacea lucida, petiolo gracili 7–10 mm. longo; lamina elliptica vel oblongo-elliptica 4–9 cm. longa 2.5–4 cm. lata abrupte anguste acuminata, acumine attenuato obtuso, basi rotundata vel obtusa, supra in sicco luteovirens, venis prominulis, subtus paullo pallidior, costa gracili elevata, nervis lateralibus utroque latere c. 5–6 gracilibus prominentibus angulo semirecto adscendentibus arcuatis remotiuscule a margine conjunctis, nervulis prominulis arcte reticulatis; flores in axillis dense fasciculati numerosi, pedicellis crassiusculis 2–4 mm. longis (in statu fructifero usque ad 12 mm.); calyx c. 1 mm. latus 5-dentatus, dentibus triangularibus acutis; corolla in alabastro globoso-ovoidea apice late obtusa; calyx fructifer ut videtur viridis abrupte reflexa et campanuliformis 7–10 mm. longus breviter 5-lobus, lobis late triangularibus obtusis; drupa depresso-globosa in sicco brunnea lucida c. 11 mm. lata et 8 mm. alta, apice subtruncata, fere laevis.—Peru: La Victoria, on the Amazon River, Dept. Loreto, in forest, August 23, 1929, *Llewelyn Williams 2719* (herb. Field Mus. No. 616,865, type).

Because of the form of its fruit, this Peruvian plant is clearly a relative of *Heisteria pallida* Engler, which was described from Tarapoto. In that species the leaves are acute at the base, the pedicels in flower are 5–10 mm. long, and the fruit is globose.

POLYGONACEAE

Coccoloba Williamsii, sp. nov.—Arbor vel arbuscula, ramulis crassis pallidis teretibus, internodiis brevibus glabris; ochreae amplae plus minusve pubescentes usque ad 3 cm. longae; folia magna subcoriacea, petiolo 0.8–3 cm. longo minute puberulo vel glabro; lamina ovalis, oblongo-ovalis vel oblongo-elliptica 12–20 cm. longa 7–12 cm. lata, apice obtusa vel rotundata et interdum breviter

acuminato-producta, rarius acuta, basi plus minusve obliqua rotundata et interdum breviter emarginata, rare obtusa vel acutiuscula, supra in sicco fusca glabra venulis vix prominulis arcte reticulatis, subtus fere concolor ad costam nervosque puberula vel serius fere omnino glabra, nervis valde elevatis angulo 45–60° abeuntibus, venulis prominulis arctissime reticulatis; inflorescentia simplex breviter pedunculata 20–25 cm. longa nodulis 1–3-floris, rhachi dense puberula vel pilosa, bracteis c. 2 mm. longis, ochreolis bilobis 2.5–3 mm. longis, pedicellis in anthesi ochreolis brevioribus, in statu fructifero usque ad 4.5 mm. longis; fructus purpureus late ovoideo-globosus 5–6 mm. diam., lobis late ovatis accrescentibus perianthii inclusus.—Peru: Lower Río Huallaga, Dept. Loreto, alt. 200 meters, in 1929, *Llewelyn Williams 4803* (herb. Field Mus. No. 626,525, type). Yurimaguas, in forest, *Williams 4597; Killip & Smith 28304*. Lower Río Nanay, *Williams 673*. Caballo Cocha, in forest, *Williams 2423*.

"Palo meta-caspi, Tangarana mashau." Reported by Killip and Smith as a scandent shrub. Related to *C. caracasana* Meissn., a species of the northern coast of South America, and of Central America.

Eriogonum hieracifolium Benth. f. **atropurpureum,** forma nov.—A forma typica non nisi perianthio atropurpureo differt.—Texas: Chisos Mountains, August 23, 1931, *C. H. Mueller 7977* (herb. Field Mus. No. 655,295, type).

In the typical form of the species, represented by *Mueller 7978* from the same locality, the perianth is bright yellow. The collector reports that in the Chisos Mountains the dark-flowered form is the more common one.

AMARANTHACEAE

Amaranthus Haughtii, sp. nov.—Herba annua erecta stricta 20–60 cm. alta fere omnino glabra, ramis paucis suberectis crassiusculis pallidis; folia tenuia pallide viridia longipetiolata alterna, petiolo gracillimo 1–3 cm. longo; lamina lanceolato-linearis usque ad ovato-elliptica vulgo 2.5–7 cm. longa 4–18 mm. lata, apice obtusa vel apicem anguste rotundatum versus sensim angustata, spinuloso-mucronata, basi acuta vel saepius basin versus longe sensim attenuata, praecipue subtus albido-puncticulata, nervis subtus prominentibus paucis pallidis, marginibus saepe plus minusve crispatis vel undulatis; flores dioeci glomerati, glomerulis parvis multifloris sessilibus axillaribus et quoque in spicas terminales densas usque ad 5 cm. longas et 4–7 mm. latas dispositis; bracteae ovatae acutae vel acuminatae spinuloso-mucronatae, vulgo sepalis femineis breviores, sepalis masculis aequilongae vel paullo longiores; sepala floris masculi 5 oblonga acuta vel breviter acuminata hyalina saepe mucronata fere 2 mm. longa; sepala floris feminei 5 late obovato-spathulata 2–2.5 mm. longa scariosa pinnatinervia apice late rotun-

data vel subtruncata supra extrorsum curvata, inferne urceolata, nervis viridibus; utriculus compresso-globosus sepalis multo brevior laevis apice tridentatus prope medium circumscisse dehiscens; semen fusco-brunneum compressum lucidum fere 1 mm. diam.—Peru: Pariñas Valley, Dept. Piura, March 18, 1929, *Oscar Haught F147* (herb. Field Mus. No. 589,332, type), *F148; 221* and *227* (U. S. Nat. Herb.). Talara, Dept. Piura, along sandy draws and on cliff talus, October, 1925, *Ivan M. Johnston 3509*. Without locality, *Weberbauer 5960*.

The plant is not closely related to any other species known from South America. Its affinities are with *Amaranthus Torreyi* (Gray) Benth., of the western United States.

Gomphrena oroyana, sp. nov.—Planta nana perennis e radice crassa elongata verticali e basi multiramosa, caulibus 2–5 cm. longis gracilibus ut videtur adscendentibus densiuscule foliatis pilis longissimis laxis albis adscendentibus dense pilosis; folia radicalia longe petiolata, lamina obovata c. 12 mm. longa glabrata obtusa vel acutiuscula viridi; folia caulina parva subpatentia petiolata, petiolo 2–3 mm. longo amplexicauli marginato, lamina elliptico-oblonga usque ad late ovata, elliptica vel rotundato-ovata 3–6 mm. longa et saepe fere aequilata, obtusa vel acutiuscula, basi acuta vel interdum rotundata, supra pallide viridi primo sparse pilosa mox glabrata, subtus pilis longis albis laxis sparse pilosa vel cito glabrata, crassiuscula, nervis obscuris vel obsoletis; capitula terminalia multiflora densa alba vix nitentia subglobosa et c. 8 mm. lata brevissime pedunculata basi nuda, pedunculo vulgo 2–5 mm. longo; bracteae late ovatae acutae vel obtusae hyalinae glabrae albae; bracteolae sepalis aequilongae late ovatae concavae obtusae hyalinae albae glabrae; sepala 3 mm. longa ovato-oblonga obtusa diaphana alba subenervia supra glabra prope basin dense lanata; androecium sepalis fere aequilongum, tubo staminum elongato, filamentis triangulari-oblongis tubo fere aequilongis, lobis lateralibus obsoletis.—Peru: Vicinity of Oroya, *A. S. Kalenborn 89* (U. S. Nat. Herb., type; fragm. in herb. Field Mus.). Oroya, November, 1924, *F. L. Stevens 6* (U. S. Nat. Herb.).

An outstanding species, not very closely related to any other of the Andean region. It bears a slight resemblance to *G. Meyeniana* Walp., but that has scapose stems.

Alternanthera asterophora, sp. nov.—Frutex 2-metralis ramosus, ramis crassiusculis teretibus dense stellato-tomentosis, tomento adpresso fulvo vel lutescente, internodiis elongatis; folia majuscula petiolata, petiolis gracilibus plerumque 1–1.5 cm. longis tomentosis; lamina late ovata, late elliptica vel rotundato-ovata 3–6.5 cm. longa 2–6 cm. lata, apice obtusa, rotundata vel rarius acutiuscula, basi acuta usque ad truncata, utrinque subtus densius stellato-tomentosa, supra interdum glabrata, tomento e pilulis stellatis vel hispidulis lutescentibus subadpressis composito, nervis

subtus prominentibus gracilibus; capitula straminea laxe paniculata nuda globosa vel breviter oblonga 12–15 mm. lata terminalia, pedunculis rigidis rectis trifidis, capitulis 1–2 cm. longe pedunculatis; bracteae et bracteolae sepalis triplo breviores late ovatae obtusae vel acutae pilosulae vel glabratae; flores breviter stipitati, stipite c. 1 mm. longo piloso; sepala 5–6 mm. longa anguste oblonga versus apicem obtusum angustata apiculata tenuiter pilosa vel supra glabrata trinervia, marginibus tenuibus pallidis; staminodia filamentis longiora ligulata apice laciniato-dentata.—Peru: Valley of Río Mantaro below Colcabamba, Dept. Huancavelica, alt. 1,700–1,800 meters, May, 1913, *A. Weberbauer 6464* (herb. Field Mus. No. 621,515, type; duplicate in U. S. Nat. Herb.).

A member of the subgenus *Mogiphanes*, but unique in its close dense pubescence of yellowish, stellate or hispidulous hairs.

Alternanthera calcicola, sp. nov.—Herba perennis basi suffruticosa ramosa, ramis brevibus et suberectis vel elongatis et procumbentibus subrigidis dense stellato-tomentosis vel serius glabratis, internodiis brevibus vel elongatis; folia crassa subsessilia vel usque ad 3 mm. longe petiolata, lamina lanceolato-oblonga usque ad rotundato-elliptica 8–22 mm. longa 3–13 mm. lata apice obtusa vel rotundata basi acutiuscula vel rotundata et abrupte decurrente, utrinque subtus densius stellato-tomentosa, tomento albido adpresso, nervis obscuris, marginibus saepe revolutis; capitula stramineo-alba globosa vel breviter oblonga 6 mm. lata, terminalia plerumque triglomerata et sessilia, glomerulis paucis usque ad 4 cm. longe pedunculatis sed vulgo pedunculis c. 5 mm. longis stipatis, nudis; bracteae et bracteolae sepalis vix breviores glabrae ovatae acuminatae et saepe mucronatae albae, interioribus paullo angustioribus; sepala glabra 2.5 mm. longa vel paullo ultra ovato-oblonga alba obtusa vel acutiuscula et brevissime mucronulata, supra valde costata, inferne obscure tricostulata; staminodia filamentis longiora ligulata apice profunde laciniata.—Peru: La Oroya, Dept. Junín, alt. 3,600 meters, on limestone cliff ledges, May–June, 1922, *Macbride & Featherstone 944* (herb. Field Mus. No. 517,472, type; duplicate in U. S. Nat. Herb.). Huariaca, 2,850 meters, shrubby canyon side, *Macbride 3110.*

The relationship of this species is probably with *Alternanthera paniculata* HBK., but that is a larger plant with paniculate heads, and with altogether different pubescence.

Alternanthera Macbridei, sp. nov. *Telanthera lupulina* Moq. in DC. Prodr. 13, pt. 2: 374. 1849, as to description, excluding most of the synonymy, not *Alternanthera lupulina* HBK. *Achyranthes lactea* Pavón ex Moq., loc. cit. in syn.

Peru: Chinchao, *Ruiz & Pavón* (photo. of specimen of *A. lactea* ex. herb. Berol.). La Oroya, *Macbride & Featherstone 967; Rose 18704* (U. S. Nat. Herb.); *Kalenborn 121* (U. S.). La Quinhua,

Macbride & Featherstone 2027. Near Huancayo, *Killip & Smith 23355.* Río Blanco, *Killip & Smith 21708.*

I have seen a photograph of type material of *Alternanthera lupulina* HBK., as represented in the Berlin herbarium; it is an altogether different plant from this one, and agrees perfectly with Kunth's original description. There may have been a mixture in the Humboldt and Bonpland material distributed as *Alternanthera lupulina,* although Moquin apparently had not seen an authentic specimen, and must have identified the name from description.

As type of *Alternanthera Macbridei* may be designated *Macbride & Featherstone 967,* as represented on sheet No. 517,495 of the herbarium of Field Museum. The species is an exceptionally well-marked one, easy of recognition by the red-blotched leaves subtending the cluster of sessile terminal heads.

Alternanthera piurensis, sp. nov.—Ut videtur herba subscandens ramosa, ramis gracilibus fusco-ferrugineis glabris vel novellis sparse breviter patenti-pilosis, internodiis valde elongatis; folia breviter petiolata tenuia in sicco fusca, petiolo gracili 3–6 mm. longo; lamina ovata vel elliptico-ovata 1.5–4 cm. longa 1–2 cm. lata longe acuminata vel abrupte cuspidato-acuminata basi vulgo obtusa vel subrotundata et abrupte decurrens, utrinque sparse pilis longis albidis laxis patentibus pilosa, nervis obscuris; capitula in paniculas laxas foliatas disposita, stramineo-alba, globosa c. 1 cm. diam., axillaria et terminalia, lateralibus simplicibus vel triglomeratis, terminalibus vulgo triglomeratis, omnibus sessilibus vel breviter pedunculatis, pedunculis vix 5 mm. longis, glomerulis basi saepe foliaceo-bracteatis, bracteis plerumque capitulis brevioribus; bracteae et bracteolae late ovatae sepalis plus quam duplo breviores acutae vel acuminatae et breviter aristato-mucronatae, glabrae vel ad costam prominentem sparse pilosae; sepala lineari-oblonga c. 5 mm. longa glabra acuta vel breviter acuminata erecta fere enervia, costa obscura; staminodia linearia filamentis longiora apice linearilaciniata, antheris linearibus 1.2 mm. longis.—Peru: Below Ayavaca, Dept. Piura, alt. 2,600 meters, May, 1912, *A. Weberbauer 6358* (herb. Field Mus. No. 621,564, type; duplicate in U. S. Nat. Herb.).

Related to *A. paniculata* HBK., which differs in its usually densely pubescent leaves, somewhat smaller flowers, and long-pedunculate axillary flower heads which never are bracted at the base.

Iresine Macbridei, sp. nov.—Suffrutex erectus vel subscandens, ramis stramineis vel brunnescentibus gracilibus obtuse angulatis laxe pilis longis albis tomentosis vel glabratis ad nodos dense villosis; folia breviter petiolata crassiuscula, petiolo crassiusculo 3–6 mm. longo villoso; lamina ovata vel ovato-oblonga 6–8 cm. longa 2.5–4 cm. lata longiuscule acuminata basi obtusa et saepe breviter decurrens, supra viridis, pilis longis laxissimis pilosa vel serius

glabrata et aspera, subtus paullo pallidior, ubique dense longissime pilis plus minusve patentibus laxis pilosa vel serius glabrata, costa pallida crassa elevata, nervis lateralibus utroque latere c. 8 prominentibus angulo acuto adscendentibus; flores dioeci, panicula terminali basi foliata ampla laxa multiflora c. 25 cm. longa et fere aequilata, ramis laxe tomentosis gracilibus patentibus vel adscendentibus; spiculae femineae albidae vel stramineae obtusae globosae vel breviter oblongae 4 mm. diam. sessiles vel breviter pedunculatae; bracteae ovato-rotundatae acutae sparse villosae, bracteolis duplo longioribus acutis; sepala floris feminei oblonga acuta scariosa 2 mm. longa basi pilis longis albis pilosa, pilis sepalis duplo vel triplo longioribus.—Peru: Huacapistana, Dept. Junín, open hillside, alt. 1,800–2,400 meters, June, 1929, *E. P. Killip & A. C. Smith 24207* (herb. Field Mus. No. 613,778, type); alt. 1,800 meters, sunny shrubby canyon side, September, 1923, *J. Francis Macbride 5823*.

So many untenable species have been described in the group of *Iresine Celosia* L. that it is scarcely commendable to add to the number another that may have no better claims to specific rank. The present plant differs from all specimens of that species in the pubescence of the leaves, consisting of very long and slender, soft, laxly spreading hairs. This is most marked in the type specimen. The second collection cited evidently represents the same species, but this is a rather weathered plant, in which most of the hairs have been abraded. A few characteristic long hairs still persist, however, along the costa.

NYCTAGINACEAE

Pisonia aculeata L.—The following collection of this common plant is listed here because of the local name that accompanies it: Mexico: Fortín, Veracruz, February, 1883, *E. Kerber 274* (herb. Leningrad). Vernacular name, "xúchil."

Torrubia Snethlagei, sp. nov.—Frutex 4–5-metralis, ramulis crassiusculis subteretibus vel subangulatis, vetustioribus griseis vel brunnescentibus, novellis fuscis hinc inde ferrugineo-villosulis vel fere glabris, internodiis brevibus; folia opposita fere sessilia crasse coriacea et plus minusve carnosa, petiolo crasso vix 2 mm. longo; lamina rotundata usque ad ovalis vel rotundato-elliptica 2–4.5 cm. longa 1.5–3.5 cm. lata obtusa vel rotundata basi rotundata vel saepius breviter cordata, supra sublucida enervia glabra, subtus glabra, costa prominente, nervis lateralibus utroque latere c. 4 obscuris angulo latiusculo adscendentibus, nervulis obsoletis, margine plus minusve revoluto; inflorescentiae masculae paucae graciliter 2–3.5 cm. longe pedunculatae cymosae pauciflorae c. 1 cm. latae basi brevissime trichotomae, ramis brevissimis sparse ferrugineo-villosulis vel fere glabris, bracteis minutis ovatis obtusis persistentibus

vix 1 mm. longis, floribus sessilibus; perianthium obconicum 3 mm. longum extus obscure ferrugineo-puberulum vel glabratum ore c. 2 mm. latum obscure brevissime obtuso-lobulatum basi acutum brunnescenti-flavum; stamina c. 5 longe exserta, antheris didymis 0.5 mm. longis.—Brazil: Maranhão, São Luiz, Olho d'Agua, strand, July 31, 1923, *H. Snethlage 152* (herb. Field Mus. No. 618,902, type; duplicate in herb. Berol.).

A plant of distinctive leaf form, remarkable in the genus for the thick and somewhat fleshy texture of the leaves.

Cyphomeris crassifolia Standl. Contr. U. S. Nat. Herb. 13: 428. 1911. *Senkenbergia crassifolia* Standl. Contr. U. S. Nat. Herb. 12: 373. 1909.

The species was described from Saltillo, Coahuila, Mexico, and has been reported also from the state of Nuevo León. The following specimen furnishes a new state record: Tamaulipas: Limestone ledges, La Tamaulipeca, July, 1930, *H. H. Bartlett 10583*.

Neea parviflora Poepp. & Endl. Nov. Gen. & Sp. 2: 46. 1838.

Heretofore this plant has been known only from Peru, being rather common in the Amazonian region of that country. It may be reported now for Colombia: Colombia: Umbría, Comisaría del Putumayo, 325 meters, in forest, *Klug 1955*. Vernacular name, "yana muco." The leaves are chewed by the Indians, making their teeth black but preserving them. These Indians have very sound and strong teeth. *Yana* signifies black, *muco* chew (*Klug*).

Mirabilis ciliatifolia (Weatherby), comb. nov. *Allionia ciliata* Standl. Contr. U. S. Nat. Herb. 12: 345. 1909. *Oxybaphus ciliatifolius* Weatherby, Proc. Amer. Acad. 49: 492. 1913. *M. ciliata* Standl. Field Mus. Bot. 8: 306. 1931, non Meigen, 1893.

Miss Winifred E. Burrell of the Gray Herbarium has been so kind as to inform me that the name *Mirabilis ciliata* already had been published by Meigen in 1893, and therefore can not be used for the plant of the United States. Its publication had been overlooked when making recently the new and invalid combination, based upon *Allionia ciliata* Standl.

RANUNCULACEAE

Ranunculus Salasii, sp. nov.—Herba perennis, radicibus fasciculatis gracilibus sed plus minusve incrassatis elongatis; caules uniflori (?) c. 18 cm. longi suberecti striati praesertim supra pilis paucis gracilibus adscendentibus induti, prope medium folio solitario longipetiolato onusti et paullo infra apicem bracteas 2 foliaceas

oblongo-lineares 7–8 mm. longas gerentes; folia basilaria longissime petiolata membranacea, petiolo gracillimo 8.5 cm. longo sparsissime pilis longissimis mollibus piloso; lamina reniformi vel semirotunda c. 13 mm. longa et 17 mm. lata apice late rotundata, basi profunde aperte cordata, grosse obtuse dentata, dentibus apice plus minusve incrassatis, supra glabra vel glabrata, subtus sparse pilis longissimis subadpressis pilosa, dentibus dense longiciliatis, lamina folii caulini simili basi truncata; sepala ovalia obtusa 5 mm. longa extus densiuscule adpresso-pilosa; petala tantum imperfecta visa lutea ut videtur ovalia conspicue venosa; cetera ignota.—Guatemala: Cumbres del Chol, Dept. Huehuetenango, alt. 3,100 meters, April, 1931, *J. G. Salas 1410* (herb. Field Mus. No. 647,687, type).

The species is based upon a single small plant, whose flower is imperfect and immature. It is altogether unlike any of the few species of *Ranunculus* known from Central America, nor have I been able to find a very close relative among the Mexican species. It was included in a small but highly interesting collection of plants made on the high mountains of Guatemala by Señor Salas, who has obtained so many unusual plants previously in the mountain regions of Guatemala.

Ranunculus testiculatus Crantz.—Utah: In dry soil near the mouth of Mill Creek Canyon, Salt Lake County, alt. 1,350 meters, May 8, 1932, *A. O. Garrett 6100.* Of this plant Professor Garrett states that he found "quite a colony" of it, growing near Salt Lake City. It is a native of southeastern Europe and of Siberia and other regions of western Asia. In general appearance it is altogether unlike the more familiar forms of the genus *Ranunculus*, and it and related species sometimes have been maintained as a separate genus, under the name *Ceratocephalus*, the present species being known to some authors as *Ceratocephalus orthoceras* DC. The plant is an interesting addition to the flora of Utah, and possibly to that of the United States.

Ranunculus testiculatus has been treated by some botanists as a variety of *R. falcatus* L., but recent authorities seem to regard the two as distinct species. Certainly they appear so to the casual observer.

ANONACEAE

Rollinia mexicana, sp. nov.—Ramuli graciles subteretes dense pilis brevibus adscendentibus vel subpatentibus brunnescentibus mollibus pilosi; folia alterna magna crasse herbacea breviter petiolata, petiolo crassiusculo 8–11 mm. longo tereti dense breviter pilosulo; lamina oblonga vel anguste elliptico-oblonga 12.5–20 cm. longa 5–8.5 cm. lata abrupte brevi-acuminata, acumine attenuato obtuso, basi

late obtusa vel subrotundata, supra cinereo-viridis, praesertim ad venas pilosula vel glabrata, subtus vix pallidior, ubique dense velutino-pilosula, costa gracili elevata, nervis lateralibus utroque latere c. 19 gracilibus prominentibus angulo lato adscendentibus subarcuatis nervulis prominulis laxe reticulatis; pedunculi infra-axillares et oppositifolii graciles recti c. 4.5 cm. longi dense breviter brunneo-pilosuli; sepala extus dense ferrugineo-tomentosa e basi latissime triangulari abrupte acuta c. 3 mm. longa et 5 mm. lata; petala late ovali-oblonga recte patentia densissime ferrugineo-tomentosa 1 cm. longa et 6 mm. lata apice late rotundata crassa.—Mexico: Tuspango, Valley of Córdoba, Veracruz, June, 1865–66, *Bourgeau 2448* (herb. Leningrad, type). Zacuapam, Veracruz, along creek, June, 1931, *C. A. Purpus 15399*.

Probably this is the plant that has been reported from Mexico as the West Indian *Rollinia mucosa* (Jacq.) Baill. (see Contr. U. S. Nat. Herb. 23: 280), but in the classification of the genus proposed by Safford it is referable rather to the group (Journ. Wash. Acad. Sci. 6: 375. 1916) containing *R. deliciosa* Safford and *R. Jimenezii* Safford. *Rollinia mexicana* is represented by rather inadequate material, but it appears to be amply distinct from all the Central American species of the genus. It is noteworthy for the very dense and soft pubescence of the lower leaf surface.

HERNANDIACEAE

Hernandia guianensis Aubl.—When the text of the *Trees and Shrubs of Mexico* (Contr. U. S. Nat. Herb. 23: 298) was prepared, only a single specimen of this species was available. Another one, likewise sterile, may now be placed on record: Colipa, Veracruz, July, 1841, *Karwinsky* (L.). Vernacular name, "palo de chicalpexte."

ROSACEAE

Crataegus uniflora Muench.—This species, which happens to be one of the few members of the genus which can be recognized by those who have not devoted their lives to study of the trivial variations of the group, has not been recorded from Mexico, although it ranges from the southeastern United States into Texas. The specimens cited below, so far as the writer can determine, differ in no essential respect, if in any, from others collected in the southeastern United States. They illustrate a considerable extension of range for the species. Mexico: Near crest of the range above Mesa de Tierra, Sierra de San Carlos, Tamaulipas, July, 1930, *H. H. Bartlett 10255, 10259*.

Prunus Zinggii, sp. nov.—Arbor, ramis vetustioribus nigrescentibus vel fusco-ferrugineis, lenticellis paucis pallidis conspersis, novellis dense velutine ferrugineo-pilosulis, internodiis brevibus; folia alterna breviter petiolata firme membranacea mediocria, petiolo crassiusculo 5–10 mm. longo dense pilosulo; lamina oblonga 6–11 cm. longa 2.8–4.5 cm. lata acuta vel obtusa basi obtusa vel anguste rotundata integra vel subundulata, supra in sicco lucida griseo-viridis, venis subimpressis, subtus fere concolor molliter pilis pallide ferrugineis pilosa vel serius glabra, costa gracili elevata, nervis lateralibus utroque latere c. 7; racemi solitarii ad nodos defoliatos annotinos inserti sessiles sublaxi multiflori 3–5 cm. longi, rhachi crassiuscula angulata sparse pilosa, bracteis linearibus brunnescentibus pedicellis brevioribus, pedicellis pilosis 2–3 mm. longis crassiusculis; hypanthium late semiglobosum pilis longiusculis pilosum 3 mm. latum, dentibus calycinis oblongo-triangularibus vel deltoideis obtusis erectis viridibus; petala alba late rotundata brevissime unguiculata 1.5–2 mm. longa glabra; stamina vix exserta.—Mexico: Mountains of southern Chihuahua, winter of 1930–31, *Robert M. Zingg A34* (herb. Field Mus. No. 641,574, type).

Vernacular name, "huaparín." The leaf blades apparently bear two small glands on the lower surface near the base and close to the costa. The leaves probably are persistent. *Prunus Zinggii* apparently is related to *P. erythroxylon* Koehne, of Colima and Michoacán, but the latter has glabrous leaves.

CONNARACEAE

Connarus Klugii, sp. nov.—Frutex 1.5–2 m. altus, ramulis crassis teretibus lenticellis numerosis parvis elevatis conspersis; folia magna longe petiolata, rhachi elongata subtereti glabra, petiolo basi valde incrassato; foliola 7–11 subopposita magna crasse 4–6 mm. longe petiolulata oblonga vel ovato-oblonga 15–26 cm. longa 5–7.5 cm. lata subabrupte cuspidato-acuminata, acumine angusto sensim attenuato supra lineari obtuso, basi rotundata vel cuneato-obtusa plus minusve obliqua, glabra, supra sublucida costa nervisque subimpressis venulis vix prominulis, subtus fere concoloria costa venisque valde elevatis, venulis paucis elevatis laxe reticulatis; paniculae ut videtur laterales fastigiatae, ramis simplicibus c. 3 cm. longis subsessilibus dense pilis brevibus ferrugineis ramosis tomentosis dense multifloris, pedicellis crassis 1–1.5 mm. longis, bracteis minutis; calyx extus dense stellato-tomentulosus ferrugineus, lobis late ovatis vel ovalibus apice rotundatis; petala ovalia vel late ovata sepalis fere duplo longiora recurva punctata; stamina petalis subaequilonga. —Peru: Mishuyacu, near Iquitos, Dept. Loreto, alt. 100 meters, in forest, May–June, 1930, *G. Klug 1494* (herb. Field Mus. No. 627,497, type); also *Klug 500*, from the same locality.

The plant has more numerous leaflets than any species of the genus known from the Amazonian region. In addition, it is

noteworthy for the exceptionally large leaflets with very long, narrow tips.

Rourea rhynchosioides, sp. nov.—Frutex scandens, ramulis crassis striatis dense pilis brevibus patentibus brunneis pilosulis; folia mediocria longipetiolata; foliola 3 crasse 3–5 mm. longe petiolulata late ovalia, ovali-rotundata vel obovato-rotundata 8–12 cm. longa 6–8.5 cm. lata, terminale paullo majus latiusque, apice subrotundata vel breviter acutata, basi late rotundata vel subemarginata, coriacea, supra in sicco cinereo-viridia fere glabra tantum ad nervos breviter pilosa, nervis venulisque non elevatis, subtus dense pilis brevibus patentibus gracillimis velutino-pilosa, costa nervisque valde elevatis, venulis quoque elevatis et arcte eleganter reticulatis; inflorescentia paniculata pedunculata 12–17 cm. longa laxe ramosa, ramis dense fulvo-tomentosis, ramis ultimis elongatis remote multifloris, pedicellis crassis vix 1 mm. longis, bracteis minutis; calyx vix 2 mm. longus dense fulvo-tomentosus, lobis brevibus triangulari-ovatis obtusis erectis; petala lutescentia glabra sepalis duplo longiora suborbicularia epunctata; stamina petalis breviora.—Peru: Mishuyacu, near Iquitos, Dept. Loreto, alt. 100 meters, in forest, October-November, 1929, *G. Klug 578* (herb. Field Mus. No. 613, 395, type).

Among the species of the upper Amazon Valley, this is well marked by the thick, broad leaflets, with elevated and strongly reticulate venation, densely velvety-pilose on the lower surface.

LEGUMINOSAE

Mimosa Wootonii Standl. Contr. U. S. Nat. Herb. 23: 364. 1922.

The species has been known heretofore only from the type specimen, collected at Hacienda Buena Vista, Tamaulipas, Mexico. Another collection from the same state is at hand: Tamaulipas: Cerro Tres Vetas, near San José, Sierra de San Carlos, 810 meters, July, 1930, *H. H. Bartlett 10385;* a scrambling vine with white flowers.

Acacia Deamii (Britt. & Rose), comb. nov. *Senegalia Deamii* Britt. & Rose, N. Amer. Fl. 23: 117. 1928.

Acacia Fisheri (Britt. & Rose), comb. nov. *Acaciella Fisheri* Britt. & Rose, N. Amer. Fl. 23: 99. 1928.

Acacia Ortegae (Britt. & Rose), comb. nov. *Senegalia Ortegae* Britt. & Rose, N. Amer. Fl. 23: 119. 1928.

Acacia peninsularis (Britt. & Rose), comb. nov. *Senegalia peninsularis* Britt. & Rose, N. Amer. Fl. 23: 116. 1928.

Acacia guadalajarana, nom. nov. *Acaciella prostrata* Britt. & Rose, N. Amer. Fl. 23: 102. 1928, non *Acacia prostrata* Lodd. 1818.

Acacia Rosei Standl. Contr. U. S. Nat. Herb. 20: 187. 1919.

A synonym of this species is *Acacia mazatlana* Jones, Contr. West. Bot. 15: 141. 1929.

Calliandra acapulcensis (Britt. & Rose), comb. nov. *Anneslia acapulcensis* Britt. & Rose, N. Amer. Fl. 23: 72. 1928.

Calliandra compacta (Britt. & Rose), comb. nov. *Anneslia compacta* Britt. & Rose, N. Amer. Fl. 23: 62. 1928.

Calliandra Michelii (Britt. & Rose), comb. nov. *Anneslia Michelii* Britt. & Rose, N. Amer. Fl. 23: 61. 1928.

Desmanthus Arsenei (Britt. & Rose), comb. nov. *Acuan Arsenei* Britt. & Rose, N. Amer. Fl. 23: 134. 1928.

Desmanthus latus (Britt. & Rose), comb. nov. *Acuan latum* Britt. & Rose, N. Amer. Fl. 23: 132. 1928.

Desmanthus Painterii (Britt. & Rose), comb. nov. *Acuan Painterii* Britt. & Rose, N. Amer. Fl. 23: 134. 1928.

Schrankia Berlandieri (Britton), comb. nov. *Leptoglottis Berlandieri* Britton, N. Amer. Fl. 23: 144. 1928.

Schrankia mimosoides (Small), comb. nov. *Leptoglottis mimosoides* Small ex Britt. & Rose, N. Amer. Fl. 23: 139. 1928.

Schrankia potosina (Britt. & Rose), comb. nov. *Leptoglottis potosina* Britt. & Rose, N. Amer. Fl. 23: 143. 1928.

Caesalpinia tampicoana (Britt. & Rose), comb. nov. *Poincianella tampicoana* Britt. & Rose, N. Amer. Fl. 23: 330. 1930.

Caesalpinia Standleyi (Britt. & Rose), comb. nov. *Poincianella Standleyi* Britt. & Rose, N. Amer. Fl. 23: 330. 1930.

Bauhinia oaxacana (Britt. & Rose), comb. nov. *Casparea oaxacana* Britt. & Rose, N. Amer. Fl. 23: 212. 1930.

Cassia Rosei, nom. nov. *Grimaldia confusa* Britt. & Rose, N. Amer. Fl. 23: 300. 1930, non *Cassia confusa* Phil. 1893.

Cassia Greenei, nom. nov. *Chamaecrista puberula* Greene, Pittonia 5: 134. 1903, non *Cassia puberula* HBK. 1823.

Cassia unijuga Rose, Contr. U. S. Nat. Herb. 5: 195. 1899.

Mexico: Sierra near Cerritos, San Luis Potosí, May, 1932, *H. W. von Rozynski 364.* The species has been known previously only from Puebla, the type having been collected at Tehuacán. It is one of the best marked of the Mexican members of the genus.

Cynometra retusa Britt. & Rose, Trop. Woods 7: 5. 1926.

The type was collected near the Atlantic coast of Guatemala, and the tree grows rather abundantly along the Honduran coast.

It has been collected recently in British Honduras. The exact locality at which the specimens were obtained is not indicated, but they were forwarded from that colony by the Conservator of Forests, and were received at Field Museum through Professor Samuel J. Record. The pods, which have not been described, are asymmetrically broadly elliptic, 2 cm. long and 1.5 cm. wide, somewhat compressed, abruptly contracted at the base and apiculate at the apex, dark brownish, and much roughened.

Hoffmanseggia pueblana (Britton), comb. nov. *Larrea pueblana* Britton, N. Amer. Fl. 23: 313. 1930.

Canavalia altipendula (Piper), comb. nov. *Wenderothia altipendula* Piper, Contr. U. S. Nat. Herb. 20: 581. 1923.

Canavalia villosa Benth. var. **glabra** (Mart. & Gal.), comb. nov. *Wenderothia glabra* Mart. & Gal. Bull. Acad. Brux. 10, pt. 2: 191. 1843.

In the typical form of the species the leaflets are densely grayish-tomentulose beneath. Forms with nearly glabrous or sparsely strigose leaflets appear at first glance so unlike the normal form that one would believe they must represent a distinct species. Since, however, they appear to differ only in the amount of pubescence, Piper (Contr. U. S. Nat. Herb. 20: 584. 1925) probably was correct in taking them to be only variants of *Canavalia villosa*. The glabrate form may well be distinguished as a variety, as above.

Wenderothia glabra was described as having white flowers. Specimens obtained recently by H. H. Bartlett (Nos. 11093, 10924) in the Sierra de San Carlos, Tamaulipas, Mexico, are described as having either wholly purple or purple and white corollas.

Desmodium Langlasseanum (Schindl.), comb. nov. *Meibomia Langlasseana* Schindl. Repert. Sp. Nov. 20: 147. 1924.

Desmodium parvum (Schindl.), comb. nov. *Meibomia parva* Schindl. Repert. Sp. Nov. 20: 153. 1924.

Desmodium prodigum (Schindl.), comb. nov. *Meibomia prodiga* Schindl. Repert. Sp. Nov. 20: 148. 1924.

Desmodium Schusteri (Schindl.), comb. nov. *Meibomia Schusteri* Schindl. Repert. Sp. Nov. 20: 146. 1924.

Desmodium Sumichrastii (Schindl.), comb. nov. *Meibomia Sumichrastii* Schindl. Repert. Sp. Nov. 20: 138. 1924.

Desmodium transversum (Rob. & Greenm.), comb. nov. *D. spirale* var. *transversum* Rob. & Greenm. Proc. Amer. Acad. 29: 384. 1894. *Meibomia transversa* Schindl. Repert. Sp. Nov. 20: 154. 1924.

Desmodium Maxonii (Standl.), comb. nov. *Meibomia Maxonii* Standl. Contr. U. S. Nat. Herb. 18: 108. 1916.

Desmodium occidentale (Morton), comb. nov. *Meibomia occidentalis* Morton, Bull. Torrey Club 57: 181. 1930.

Desmodium metallicum (Rose & Standl.), comb. nov. *Meibomia metallica* Rose & Standl. Contr. U. S. Nat. Herb. 16: 214. 1913.

Eriosema grandiflorum (Schlecht. & Cham.) Seem.—A new synonym of this species is *Cracca collina* Jones, Contr. West. Bot. 15: 137. 1929.

Psoralea brachypus (Rydb.), comb. nov. *Pediomelum brachypus* Rydb. N. Amer. Fl. 24: 24. 1919.

Psoralea trinervata (Rydb.), comb. nov. *Pediomelum trinervatum* Rydb. N. Amer. Fl. 24: 23. 1919.

Tephrosia Conzattii (Rydb.), comb. nov. *Cracca Conzattii* Rydb. N. Amer. Fl. 24: 162. 1923.

Tephrosia lanata Mart. & Gal.—*Cracca lupinoides* Jones (Contr. West. Bot. 15: 137. 1929) is based upon material which is a mixture of the typical form of this species and its variety *velutina* (Rydb.) Macbride.

Tephrosia latidens (Small), comb. nov. *Cracca latidens* Small, Fl. Southeast. U. S. 609, 1331. 1903.

Tephrosia Roseana (Rydb.), comb. nov. *Cracca Roseana* Rydb. N. Amer. Fl. 24: 164. 1923.

Zornia Harmsiana, nom. nov. *Zornia gracilis* Harms, Bot. Jahrb. 42: 212. 1908, non DC. 1825.

ZYGOPHYLLACEAE

Kallstroemia boliviana, sp. nov.—Herba procumbens vel prostrata ut videtur perennis, caulibus elongatis hirsutis et dense incurvo-puberulis; foliola trijuga oblonga vel ovalia valde obliqua 6–18 mm. longa apice rotundata, obtusa vel subacuta utrinque dense adpresso-pilosa, petiolo foliolis breviore; pedicelli foliis breviores hirsuti usque ad 1.5 cm. longi; sepala c. 8 mm. longa anguste lanceolato-oblonga breviter acuminata sparse hispido-hirsuta et adpresso-pilosa persistentia; petala 12–18 mm. longa; fructus dense cinereo-strigosus 8–10 mm. longus, columna e basi lata conica sensim attenuata strigillosa.—Bolivia: Cerro San Pedro, Cochabamba, alt. 2,600 meters, December 26, 1928, *J. Steinbach 8784* (herb. Field Mus. No. 637,209, type). Bolivian Plateau, *Bang 927*. Cotaña am Illimani, Dept. La Paz, 2,400 meters, *Buchtien 671*. Without locality, *Mandon*.

This plant is perhaps confined to Bolivia; it is not matched among the rather numerous Peruvian specimens at hand. It is most closely related to *K. caribaea* Rydb., which ranges from the Antilles southward at least to Peru, and may be only a form or variety of *K. maxima* (L.) Torr. & Gray, but it differs strikingly in the size of its flowers from both those species, in which the petals are only half as long.

Porlieria Steinbachii, sp. nov.—Ramuli rigidi ochracei, novelli praesertim ad nodos villoso-tomentosi glabrescentes; folia parva subsessilia, foliolis c. 15-jugis linearibus 4–8 mm. longis obtusis sessilibus supra glabratis sublucidis subtus sparse subsericeis vel glabratis; flores solitarii 1 mm. longe pedicellati, sepalis 2.5 mm. longis oblongis vel ovalibus obtusissimis nitido-strigosis; petala sepalis paullo longiora glabra; ovarium obtuse trilobum glabrum stylo brevi columnari terminatum.—Bolivia: Trockene Bergreite, Mairana, Dept. Santa Cruz, alt. 1,400 meters, October 16, 1928, *José Steinbach 8281* (herb. Field Mus. No. 637,072, type).

All the other South American species of the genus have much less numerous leaflets. This is probably the same as *Mandon 861* from Bolivia, mentioned by Rusby (Mem. Torrey Club 6: 15. 1896) under his description of *Porlieria arida.*

RUTACEAE

Zanthoxylum Clava-Herculis L. var. **fruticosum** (Gray) Wats. Bibl. Ind. 1: 156. 1878.

Although ranging widely in the southern United States, from Florida to Texas, neither *Zanthoxylum Clava-Herculis* nor its variety has been reported from Mexico. The following collection, although sterile, seems clearly to be referable to the variety cited:

Mexico: Cerro Carrizo, vicinity of San José, Sierra de San Carlos, Tamaulipas, 1,410 meters, July, 1930, *H. H. Bartlett 10511.*

MALPIGHIACEAE

Aspicarpa hyssopifolia Gray, Bost. Journ. Nat. Hist. 6: 167. 1850.

No Mexican specimens of the species were available when the *Trees and Shrubs of Mexico* was written, but it was listed in that work (Contr. U. S. Nat. Herb. 23: 575. 1923) in the belief that it must occur in northeastern Mexico. A Mexican collection of *Aspicarpa hyssopifolia* may now be placed on record: Cerro de la Tamaulipeca, vicinity of San Miguel, Sierra de San Carlos, 600 meters, July, 1930, *H. H. Bartlett 10614.*

BUXACEAE

Buxus Conzattii, sp. nov.—Glabra, ramulis crassis stramineo-olivaceis petiolis decurrentibus plus minusve angulatis, internodiis foliis brevioribus; folia mediocria petiolata lucida in sicco fusco-olivacea subcoriacea, petiolo angustissime marginato 7–10 mm. longo; lamina lanceolato-oblonga 4–7 cm. longa 2–3 cm. lata acuta vel acuminata, acumine ipso saepe spinuloso-producto, basi obtusa abrupte contracta et decurrens, venis supra obsoletis, costa subtus elevata gracili, penninervia, nervis tenerrimis prominulis, venulis obscuris, margine anguste revoluto; racemi parvi densi capituliformes subsessiles vel usque ad 5 mm. longe pedunculati, floribus pedicellis crassis usque ad 2 mm. longis stipatis vel interdum sessilibus, flore femineo unico, bracteis sepalis conformibus; sepala 3–3.5 mm. longa, floris feminei rotundato-ovata et abrupte acuminata ciliata, floris masculi angustiora; capsula immatura late ovoidea 8 mm. longa sessilis, stylis latis obtusis 1.5 mm. longis recurvis.—Mexico: Chapulapa-Chiquihuitlán, Distrito Cuicatlán, Oaxaca, August 18, 1909, *C. Conzatti 2508* (herb. Field Mus. No. 285,547, type).

Several specimens of this plant have come to the writer's attention at one time or another, but its systematic position was not recognized until recently, although it is sufficiently like other members of the genus, which, it must be stated, is not amply represented in continental North America. *Buxus Conzattii* is altogether unlike any of the three species already described from Mexico, but it is very closely related to *B. columnaris* Muell. Arg. of Martinique. The latter differs in its obtuse sepals and its 3-nerved leaves.

ANACARDIACEAE

Rhus Galeottii, sp. nov.—Ramuli gracillimi subteretes olivacei vel ochracei, vetustioribus lenticellis parvis elevatis conspersis, novellis dense pilosulis; folia alterna mediocria 3–5-foliolata, petiolo gracillimo 2–3.5 cm. longo tereti, rhachi in foliis 5-foliolatis 2–2.5 cm. longa nuda dense hirtella; foliola lateralia sessilia ovalia vel oblongo-elliptica vel interdum ovali-obovata 2–3.5 cm. longa 1.3–2.2 cm. lata integra vel inconspicue sinuato-crenulata apice late rotundata vel subemarginata basi rotundata vel interdum breviter oblique cuneato-angustata, foliolo terminali majore oblongo-ovali vel ovali-obovato 4–7.5 cm. longo 2–4 cm. lato interdum prope apicem breviter trilobato prope basin abrupte vel sensim contracto et in petiolulum marginatum usque ad 7 mm. longum decurrente, foliolis omnibus membranaceis utrinque dense patenti-pilosis, venis gracillimis prominulis, subtus vix pallidioribus; inflorescentia terminalis foliis bene brevior 2.5–5 cm. longa simpliciter paniculato-ramosa vel subsimplex laxe pauci- vel multiflora, ramis gracillimis hirtellis, bracteis persistentibus ovatis extus hirtellis vix 1 mm. longis, floribus sessilibus; sepala rotundato-ovata apice rotundata

viridia subscariosa ciliolata et interdum extus sparse minute pilosula; petala imbricata c. 1.5 mm. longa late obovata apice rotundata glabra.—Mexico: Talea, September, 1844, *H. Galeotti 7247F* (herb. Leningrad, type).

The plant seems to be a relative of *Rhus terebinthifolia*, *R. jaliscana*, and *R. Barclayi*, all of which are Mexican species. They differ in having more numerous acute or acuminate leaflets, commonly of decidedly thicker texture, and much larger and denser panicles.

Rhus chondroloma, sp. nov.—Ramuli ferruginei subteretes minute cinereo-puberuli; folia alterna 3–5-foliolata, petiolo crassiusculo subtereti exalato 1.5–2.5 cm. longo minute puberulo vel glabrato, rhachi in foliis 5-foliolatis 1.5–2.5 cm. longa anguste alata, ala anguste revoluta; foliola lateralia sessilia vel brevissime petiolulata oblonga usque ad late elliptica vel late elliptico-obovata 2.5–4 cm. longa apice late rotundata vel obtusissima basi rotundata vel oblique obtusa, foliolo terminali majore late rotundato-obovato vel late elliptico 2.5–4 cm. longo 2–3 cm. lato apice late rotundato vel truncato et saepe obscure apiculato, basin versus saepissime cuneatim angustato et in petiolulum marginatum 8–13 mm. longum abrupte contracto, foliolis omnibus crasse coriaceis lucidis supra fusco-viridibus, venis pallidis prominulis conspicuis, subtus pallidis glabris vel minutissime obscure puberulis, margine pallido incrassato; inflorescentia terminalis paniculata breviter pedunculata foliis vix aequilonga 2–4 cm. longa dense multiflora, ramis dense minute puberulis crassis, floribus sessilibus, bracteis imbricatis late triangulari-ovatis c. 2 mm. longis acutiusculis extus dense puberulis; sepala rotundato-ovata apice rotundata vel obtusissima crasse scariosa glabra; petala late obovata imbricata apice rotundata glabra 3 mm. longa.—Mexico: Tehuacán, Puebla, June, 1905, *C. A. Purpus 1290* (herb. Field Mus. No. 192,858, type).

The closest relative of this plant is *Rhus virens* Lindheimer, which occurs in northeastern Mexico and the adjacent United States. It differs from *Rhus chondroloma* in having 5 or 7 leaflets, which are decidedly different in form.

Rhus radicans L.—The following specimen of the plant is accompanied by a local name which seems not to have been associated previously with the species: Mexico: Fortín, Veracruz, March, 1883, *E. Kerber 397* (herb. Leningrad). Vernacular name, "aquixtle."

Rhus lanceolata (Gray) Britton in Britt. & Shafer, N. Amer. Trees 606. 1908. *R. copallina* var. *lanceolata* Gray, Bost. Journ. Nat. Hist. 6: 158. 1850.

This shrub, whether it be a distinct species or only a variety of the eastern *Rhus copallina*, has not been known to occur in Mexico. The following collection has been obtained there recently:

Tamaulipas: Near crest of Sierra de San Carlos, above Mesa de Tierra, July, 1930, *H. H. Bartlett 10269.*

CELASTRACEAE

Zinowiewia integerrima Turcz.—In the *Trees and Shrubs of Mexico* (Contr. U. S. Nat. Herb. 23: 678) a single local name for the tree was listed. Another may now be reported: Mexico: Fortín, Veracruz, March, 1883, *E. Kerber 360* (herb. Leningrad). Vernacular name, "naranjillo."

Schaefferia frutescens Jacq. Enum. Pl. Carib. 33. 1760.

In the *Trees and Shrubs of Mexico* (Contr. U. S. Nat. Herb. 23: 682. 1923) it was stated that this shrub or tree was reported to occur in Veracruz, but no specimens had been seen by the writer. There may be reported now from Tamaulipas a collection that seems to be referable to the species. Although its leaves are slightly different from those of West Indian plants, the differences do not appear sufficient to warrant nomenclatorial recognition for the Mexican form.

Mexico: Vicinity of Marmolejo, Sierra de San Carlos, Tamaulipas, 660 meters, August, 1930, *H. H. Bartlett 10757;* a shrub 3.5 meters high; ripe fruits red.

STAPHYLEACEAE

Turpinia insignis (HBK.) Tulasne.—One collection examined recently is worthy of special mention: Mexico: Colipa, Veracruz, July, 1841, *Karwinsky 78* (herb. Leningrad). Vernacular name, "capulín cimarrón."

SAPINDACEAE

Talisia peruviana, sp. nov.—Frutex vel arbuscula 2.5–6 m. alta, ramulis gracilibus subteretibus, novellis minute strigillosis; folia alterna pinnata 3-foliolata graciliter petiolata, rhachi brevi tereti, foliolis breviter petiolulatis, petiolulo crassiusculo usque ad 5 mm. longo saepe subnullo, lateralibus alternis; foliola membranacea oblongo-elliptica, lanceolato-oblonga vel obovata 5.5–18 cm. longa 2–8 cm. lata subabrupte attenuato-acuminata vel saepe longe cuspidato-acuminata, basi acuta vel cuneata, glabra, minute dense pellucido-punctata; inflorescentia racemiformis foliis duplo brevior pauciflora, pedicellis crassiusculis 2–3 mm. longis dense ochraceo-strigillosis, sub fructum paullo elongatis, bracteis minutis; sepala 1.5 mm. longa ovali-oblonga obtusa extus sericea; petala cuneato-obovata 2 mm. longa; discus crassus glaber; ovarium 2-loculare dense strigillosum, stylo ad basin bifido, ramis brevibus crassis; fructus late ovalis 2 cm. longus luteus oliviformis basi et apice rotundatus vel

apice plus minusve angustatus et obtusus minute tuberculatus puberulus vel glabratus, 2-locularis, seminibus magnis in loculis solitariis.—Peru: Cumbasa, Tarapoto, Dept. San Martín, in forest, December 7, 1929, *Llewelyn Williams 5745* (herb. Field Mus. No. 626,414, type). Tarapoto, *Williams 6652, 6578.* Río Mayo, Tarapoto, *Williams 6208.* Puerto Arturo, Dept. Loreto, *Williams 5218, 5118, 5303; Killip & Smith 27915, 27874.* Yurimaguas, Loreto, *Killip & Smith 27645, 27673, 27636.* Balsapuerto, Loreto, *Killip & Smith 28549, 28481, 28484, 28627.* Santa Rosa, Loreto, *Killip & Smith 28857.*

The generic position of this tree is decidedly uncertain, chiefly because no perfect flowers are available for study. With little doubt, it is closely related to *Talisia japurensis* (C. DC.) Radlk., originally published by Casimir DeCandolle as a species of *Guarea,* and placed by Radlkofer in the genus *Talisia,* although of doubtful position there, since the flowers are unknown. From the present plant *T. japurensis* differs in having 4–6 leaflets, the lateral ones on slender elongate petiolules. The ovary and fruit of *T. peruviana* are clearly 2-celled, and it seems probable that the same may be true of *T. japurensis.* The genus *Talisia* is described as having a 3-celled ovary, but one or more of the cells sometimes fail to develop in the fruit.

RHAMNACEAE

Gouania polygama (Jacq.) Urban.—In the *Trees and Shrubs of Mexico* (Contr. U. S. Nat. Herb. 23: 712) no vernacular name was reported from Mexico for this species. It is, therefore, worth while to cite the following collection, which, although without fruit, apparently is referable here: Mexico: La Luz, near Córdoba, Veracruz, October, 1882, *E. Kerber 73* (herb. Leningrad). Vernacular name, "misa mayor."

TILIACEAE

Heliocarpus americanus L.—The following collection of this common species deserves citation because it is accompanied by a vernacular name which, apparently, has not been recorded: Mexico: Fortín, Veracruz, February, 1883, *E. Kerber 276* (herb. Leningrad). Vernacular name, "huanate." The name is similar to the more common *jonote,* and probably is a variant of it.

Corchorus aestuans L. Syst. Nat. ed. 10. 1079. 1759.

The occurrence of this species in Mexico has not been indicated by any material observed by the writer during recent years, although the plant is widely distributed in the West Indies and South

America. The following collection is in the herbarium of Field Museum: Manzanillo, Colima, October 20, 1910, *C. R. Orcutt 4488.*

Triumfetta brachistacantha, sp. nov.—Frutex, ramis gracilibus teretibus ferrugineis glabratis, novellis minute stellato-puberulis; stipulae anguste lineares 1–2 mm. longae; folia parva graciliter petiolata membranacea, petiolo ad 6 mm. longo stellato-pilosulo; lamina oblongo-ovata vel lanceolato-ovata 1.5–2 cm. longa 8–10 mm. lata acuta vel acuminata basi lata breviter anguste cordata grosse inaequaliter crenata vel subserrata supra sparse minute stellato-pubescens, subtus densius stellato-hispidula, basi 5-nervia; flores subcymosi vel umbellati subracemose dispositi vel anguste paniculati, paniculis laxis multifloris, pedicellis crassiusculis usque ad 3 mm. longis stellato-puberulis; sepala linearia 5 mm. longa breviter appendiculata extus sparsiuscule minute stellato-puberula; petala spathulato-linearia sepalis subaequalia glabrata; stamina numerosa, filamentis gracillimis elongatis glabris; capsula sessilis globosa 4 mm. diam. fere omnino glabra dense echinata, echinis validis basi dilatatis vix 1 mm. longis apice breviter uncinatis glabris vel sparsissime puberulis.—Mexico: Chivela, Oaxaca, December, 1925, *G. Bossé 8019* (Herb. Field Mus. No. 641,470, type).

Among Mexican species of *Triumfetta* the present plant is easily distinct by its small fruits with remarkably short spines.

Triumfetta leiocarpa, sp. nov.—Frutex, ramulis gracilibus brunnescentibus glabratis lenticellis paucis parvis conspersis; folia alterna magna membranacea longe graciliter petiolata, petiolo 6–9 cm. longo pilis paucis minutis stellatis praesertim apicem versus consperso; lamina ovato-rotundata c. 13 cm. longa et aequilata abrupte longiacuminata acumine angusto serrato, basi subtruncata, argute serrata vel crenato-serrata, supra viridis sparse hispido-hirsuta et pilis paucis minutis stellatis induta, subtus sparse stellato-hispidula, basi 9-nervia; flores in paniculas c. 10 cm. longas laxas dispositi, ramis gracilibus sparsiuscule minute stellato-puberulis; capsula subsessilis omnino glabra globosa dense echinata 4–5 mm. diam., echinis rigidis gracilibus 3–3.5 mm. longis apice breviter uncinatis.—Mexico: Cohuayana, Colima, November, 1906, *G. M. Emrick 130* (herb. Field Mus. No. 200,470, type).

Vernacular name, "chayotillo negro." The available material of the plant is too scant to be satisfactory for study, but it is sufficient to show that it represents a species distinct from any of those listed for Mexico. Its chief distinctive character is the complete absence of pubescence on the fruit.

Triumfetta Purpusii, sp. nov.—Frutex, ramis gracilibus teretibus cinnamomeis vel brunnescentibus dense stellato-tomentosis; stipulae deciduae filiformes ad 7 mm. longae; folia parvula longe graciliter petiolata vel superiora brevipetiolata membranacea, petiolo usque ad 3.5 cm. longo dense stellato-tomentoso; lamina

ovata vel ovato-oblonga 4–7 cm. longa 2–4 cm. lata longe anguste acuminata, basi rotundata et anguste breviter (ad 5 mm.) cordata, inaequaliter serrata, 7-nervia, supra dense pilis laxis albidis stellato-pilosa, subtus incana pilis mollibus densissime stellato-tomentosa; flores plerumque in axillis superioribus aggregati vel in paniculas parvas densas dispositi breviter pedicellati; sepala dense pilis longis pallidis mollibus stellato-pilosa, linearia 6–7 mm. longa apice longissime appendiculata, appendicibis filiformibus 7–8 mm. longis; petala lineari-ligulata sepalis subaequalia; stamina numerosa, filamentis gracillimis glabris; capsula dense pilis longiusculis patentibus albidis pilosa globosa 4 mm. diam., echinis subpaucis rigidis crassiusculis dense pilosis armata.—Mexico: Matazaeza, Veracruz, March, 1923, *C. A. Purpus 9009* (herb. Field Mus. No. 553,014, type). Remudadero, Veracruz, rocky forest, November, 1926, *Purpus 11099*.

The relationship of the plant is with *Triumfetta falcifera* Rose, described from Acapulco, which differs in fruit characters. *T. Purpusii* is remarkable for extreme elongation of the sepal appendages.

MALVACEAE

Kosteletzkya hibiscifolia, sp. nov.—Herba elata, ramis validis teretibus densiuscule pilis plerumque solitariis rigidis hispidis et lineis 2 pilulorum stellatorum parvorum onustis; folia magna membranacea longipetiolata, petiolo 4–6 cm. longo hispido; lamina profunde 5-lobata, late aperte basi cordata, supra pilis plerisque simplicibus dense hispida, subtus pilis plerisque stellatis hispido-hirsuta, 7-nervia, lobis anguste oblongo-triangularibus longiacuminatis serrato-dentatis; flores paniculas magnas laxas multifloras efformantes, plus minusve racemose dispositi, breviter graciliter pedicellati, pedicellis ut rami paniculae hispidis et plus minusve stellato-puberulis; bracteolae 8–10 lineari-filiformes 5–7 mm. longae hispido-ciliatae; calyx 1 cm. longus profunde 5-lobatus extus dense minute stellato-tomentulosa, lobis oblongo-lanceolatis acuminatis versus apicem hispido-ciliatis, interdum versus basin pilis paucis stellatis majoribus onustis; petala ante anthesin 1.5 cm. longa extus stellato-hispidula et sparse hispida; cetera ignota.—Mexico: Ixtagua, San Ignacio, Sinaloa, alt. 650 meters, *J. G. Ortega 485* (herb. Field Mus. No. 598,141, type).

This may be merely a form of *K. paniculata* Benth., but in that species the harsh pubescence is much less developed, and consists chiefly of stellate rather than simple hairs. In that, moreover, the bractlets are poorly developed, only 3–4 mm. long, and merely stellate-puberulent rather than hispid-ciliate with long stiff hairs.

FLACOURTIACEAE

Abatia mexicana Standl. Field Mus. Bot. 8: 318. 1931.

The type was collected at Mirador, Veracruz, *Liebmann 15030*. In a sending of Mexican plants received recently from Copenhagen

there is a second sheet of the species, *Liebmann 618*, labeled as collected at Tehuacán, Puebla, in December, 1841. I feel somewhat skeptical regarding the accuracy of the label of this second collection. It does not seem probable that a species of *Abatia* would be found in a region so arid as that about Tehuacán.

THYMELEACEAE

Schoenobiblus peruvianus, sp. nov.—Frutex, ramis vetustioribus ferrugineis glabratis, novellis hirsutis vel interdum fere glabris; folia magna brevissime petiolata membranacea, petiolo crasso usque ad 1 cm. longo; lamina oblanceolato-oblonga vel anguste oblanceolata 16–30 cm. longa 5–12 cm. lata abrupte longiacuminata, acumine angusto attenuato, basin versus longe sensim attenuata et interdum fere ad basin petioli decurrens, supra glabra, venulis prominulis, subtus fere concolor, interdum dense pilis pallidis rigidis hirsuta, pilis persistentibus vel cito deciduis; inflorescentia multiflora paniculiformis vel umbelliformis longipedunculata usque ad 12 cm. longa, ramis crassis adpresso-pilosis vel subhirsutis, floribus subumbellatis, pedicellis crassiusculis adpresso-pilosis usque ad 1 cm. longis; sepala paullo inaequalia anguste oblonga obtusa 5–7 mm. longa dorso unicostata; stamina sepalis duplo brevioribus; fructus suboblique ovoideus glaber 15–18 mm. longus obtusus apiculatus.—Peru: Timbuchi, Alto Río Nanay, Dept. Loreto, July 1, 1929, *Llewelyn Williams 1162.* Paraíso, Alto Itaya, *Williams 3354.* Pebas, in forest, *Williams 1707, 1878, 1595.*

"Barbasco-caspi." Of this small genus three species have been described previously, one from the Rio Japurá, Brazil, one from Trinidad, and another from Colombia. The Peruvian plant probably is most closely related to the Brazilian *S. daphnoides*, but that has much narrower leaves, described as glabrous. The specimens referred here to *S. peruvianus* are variable in pubescence, but since both densely hairy and almost glabrous forms were collected at Pebas, the pubescence is probably either fugitive or else variable.

ARALIACEAE

Gilibertia arborea (L.) March.—A new local name accompanies a specimen of this species examined recently: Mexico: Fortín, Veracruz, March, 1883, *E. Kerber 380* (herb. Leningrad). Vernacular name, "tamalcoahuite."

OLEACEAE

Forestiera racemosa Wats. Proc. Amer. Acad. 25: 158. 1890.

The species was described from the Sierra Madre near Monterrey, and has been collected heretofore only in Nuevo León. The following collection confirms its occurrence in another state:

Mexico: Limestone ledges, Cerro de los Armadillos, Sierra de San Carlos, Tamaulipas, July, 1930, *H. H. Bartlett 10208.*

Osmanthus americana (L.) Benth. & Hook. ex Gray, Syn. Fl. 2, pt. 1: 78. 1878. *Olea americana* L. Mant. Pl. 24. 1767.

A remarkable extension of range is indicated by the collection cited below, which was obtained in northeastern Mexico. This shrub, which ranges rather widely in the southeastern United States, reappears in southern Mexico, in Oaxaca and perhaps elsewhere. Its curious distribution is matched, however, by that of certain other plants, striking examples being *Gelsemium* and *Illicium floridanum.* One might well expect the Mexican *Osmanthus* to represent a distinct species, but I see no clear differences, if any at all, between the specimen from Tamaulipas and others from Florida.

Mexico: Mesa de Tierra, near San José, Sierra de San Carlos, July, 1930, *H. H. Bartlett 10263;* a shrub 1.8–3 meters high.

MYRSINACEAE

Ardisia stenobotrys, sp. nov.—Folia magna crasse membranacea brevipetiolata in sicco cinereo-viridia, petiolo 2–3 cm. longo late marginato; lamina lineari-oblanceolata c. 39 cm. longa 8 cm. lata versus apicem acutiusculum breviter angustata, basin versus longe sensimque attenuata glabra dense minute pellucido-punctata, costa nervisque utrinque plus minusve prominentibus, nervis lateralibus utroque latere c. 25 angulo fere recto divergentibus; inflorescentia terminalis (?) glabra 20 cm. longe pedunculata, 22 cm. longa atque 4 cm. lata, floribus in umbellas plurifloras dispositis, umbellis c. 19 racemosis 6–14 mm. longe pedunculatis, pedicellis supra valde incrassatis c. 8 mm. longis, bracteis caducis; sepala 5 contorta late ovata obtusa 4.5 mm. longa eciliata impunctata; petala leviter contorta triangulari-oblonga 1 cm. longa punctis et lineis destituta acuta in anthesi recurva; stamina exserta, filamentis gracillimis 4 mm. longis, antheris sagittato-linearibus 7 mm. longis.—Brazil: State of Amazonas, Rio Maturacá, below Salto de Huá, December, 1930, *E. G. Holt & E. R. Blake 521* (herb. Field Mus. No. 640,133, type).

A remarkable plant, quite unlike any of the American species described by Mez. It is most noteworthy for its large, narrow, much elongate leaves, and for the long narrow inflorescence, a simple raceme of numerous stalked several-flowered umbels.

Rapanea Lehmannii, sp. nov.—Frutex vel arbor omnino glabra, ramulis crassis angulatis fuscis versus apices dense foliatis; folia parva crasse coriacea, petiolo crasso 3–6 mm. longo latiuscule fere ad basin marginato; lamina elliptica vel ovalis 2–3.5 cm. longa 1–1.5 cm. lata apice rotundata vel late obtusa basi breviter cuneato-

angustata in sicco fusca, supra enervis costa impressa, subtus quoque enervis remote punctata costa valde prominente; flores ad nodos umbellato-fasciculati, pedicellis crassis 2–3 mm. longis acute angulatis; sepala 5 breviter coalita 2.5 mm. longa crassa oblongo-triangularia acutiuscula margine nuda; petala 5 oblonga 3.5–4 mm. longa breviter coalita acutiuscula lineis destituta; antherae petalis paullo breviores late oblongae apice acutiusculae et subincurvae.—Colombia: Páramo de las Delicias, central Andes of Popayán, alt. 3,000–3,500 meters, *F. C. Lehmann 8459* (herb. Field Mus. No. 578,100, type).

SAPOTACEAE

Lucuma hypoglauca Standl. Trop. Woods 4: 4. 1925.

This exceptionally distinct species was described from Salvador, and it occurs also in Yucatan (see Field Mus. Bot. 3: 380. 1930), where it is called "zapote blanco." A specimen from still farther north, collected almost a century ago, has come to hand recently among miscellaneous Mexican material received for determination from Leningrad: Mexico: Colipa, Veracruz, July 22, 1841, *Karwinsky 61*. The collector reports the vernacular name as "palo de calentura." Although the specimens are sterile, there is practically no doubt regarding their proper reference to *Lucuma hypoglauca*.

ASCLEPIADACEAE

Trichosacme lanata Zucc. Abh. Akad. Wiss. Muenchen 4, pt. 2: 11. 1845.

This curious vine of the family Asclepiadaceae, with extraordinary flowers of striking appearance, was described originally from Mexico, without indication of the exact locality at which it was collected. There is in the herbarium of Field Museum a photograph of an authentic specimen in the Berlin Herbarium, received "ex hort. Monacens." I have seen a specimen of *Karwinsky 457* in the Leningrad herbarium, that represents the same plant.

It is of interest to record the receipt of a new collection of *Trichosacme lanata* from Mexico, for the first time one with definite locality data, as follows: Thicket near San Vicente, vicinity of Jaumave, Tamaulipas, November 1, 1931, *H. W. von Rozynski 210*. The collection is in fruit. Besides the curious flowers, the plant is noteworthy for the exceedingly dense and copious, white tomentum that invests all its parts.

CONVOLVULACEAE

Exogonium Woronovii, sp. nov.—Volubilis herbacea, caulibus gracillimis striatis parce breviter pilosulis vel glabratis; folia medi-

ocria breviter petiolata membranacea viridia, petiolo vulgo c. 1 cm. longo vel in foliis superioribus multo breviore dense patenti-piloso; lamina ovata vel triangulari-ovata 3.5–9 cm. longa 1.5–7 cm. lata integra longiacuminata basi profunde anguste cordata, auriculis late rotundatis, utrinque densiuscule breviter pilosula; flores cymosi, cymis axillaribus umbelliformibus 3–5-floris 0.8–2 cm. longe pedunculatis, pedunculis breviter pilosulis, bracteis late ovatis minutis, pedicellis plerumque 5–7 mm. longis supra incrassatis angulatis glabris; sepala valde inaequalia oblonga vel late oblonga 5–9 mm. longa glabra apice obtusa vel late rotundata; corolla coccinea glabra, tubo 3.8 cm. longo gracili versus faucem sensim dilatato et sub orem fere 5 mm. lato, lobis patentibus vel adscendentibus anguste triangulari-oblongis attenuato-acuminatis c. 1 cm. longis; antherae longe exsertae; capsula ovoidea glabra acutiuscula 12 mm. longa; semina immatura minute puberula.—Mexico: Rodillo del Diablo near Uruapan, Michoacán, January 20, 1926, *G. Woronow 2906* (herb. Field Mus. No. 641,479, type).

Jacquemontia Rozynskii, sp. nov.—Volubilis, ut videtur perennis, caulibus teretibus sparse ramosis albidis densissime stellato-tomentosis, internodiis saepe foliis longioribus; folia mediocria breviter petiolata crassa mollia, petiolo crasso 2–7 mm. longo tomentoso; lamina ovata rotundato-ovata vel oblongo-ovata 2.5–3.8 cm. longa 1.5–2.5 cm. lata integra acuta vel rarius subobtusa basi late rotundata vel leviter emarginata, utrinque subtus densius stellato-tomentosa albida; cymae triflorae axillares subsessiles vel 5 mm. longe pedunculatae, pedicellis crassis usque ad 3 mm. longis vel nullis, bracteis subulatis vel fere filiformibus plerumque sepalis brevioribus dense tomentosis; sepala valde inaequalia 7–11 mm. longa ovata vel lanceolata subulato-acuminata densissime stellato-tomentosa albida; corolla fere 2 cm. longa ut videtur alba c. 2.5 cm. lata extus ad costas sericea aliter glabra vel glabrata; antherae longe exsertae.—Mexico: Mountain slopes near San Vicente, vicinity of Jaumave, Tamaulipas, September 29, 1931, *H. W. von Rozynski 46* (herb. Field Mus. No. 648,540, type), *46a.*

Related to *Jacquemontia abutiloides* Benth., of the western coast of Mexico. That species differs in its chiefly long-pedunculate cymes, cordate leaves, and distinct pubescence.

Jacquemontia Rusbyana, nom. nov. *J. densiflora* Rusby, Bull. Torrey Club 26: 151. 1899, non Hallier, 1893.

VERBENACEAE

Lantana involucrata L. var. **velutina** (Mart. & Gal.), comb. nov. *L. velutina* Mart. & Gal. Bull. Acad. Brux. 11: 325. 1844.

Most of the Mexican material referable to *Lantana involucrata* differs slightly from the West Indian form, having usually acute or acutish rather than rounded leaves, which are more coarsely crenate and more densely pubescent. There are, however, inter-

mediate forms, and the typical form of the species grows in the Yucatan Peninsula. None of the Mexican specimens seem to deserve specific rank, but they are worthy of varietal designation.

Tamonea curassavica (L.) Pers.—This low, herbaceous or suffrutescent plant has been reported as ranging in Mexico from San Luis Potosí to Veracruz and Yucatan. It extends also into the state of Tamaulipas, as indicated by the following collection: Slope near Jaumave, Tamaulipas, September 29, 1931, *H. W. von Rozynski 40*.

LABIATAE

Satureia oaxacana (Fernald), comb. nov. *Calamintha oaxacana* Fernald, Proc. Amer. Acad. 35: 564. 1900. *Clinopodium oaxacanum* Standl. Contr. U. S. Nat. Herb. 23: 1273. 1924.

The following collection represents a substantial extension of range for the species: Mexico, Maltrata, January, 1883, *E. Kerber 268* (herb. Leningrad). Vernacular name, "poleo."

Satureia laevigata (Standl.), comb. nov. *Clinopodium laevigatum* Standl. Contr. U. S. Nat. Herb. 23: 1273. 1924.

SOLANACEAE

Capsicum Pringlei (Wats.) Macbride & Standl., comb. nov. *Brachistus Pringlei* Wats. Proc. Amer. Acad. 25: 159. 1890.

The plant listed in the *Trees and Shrubs of Mexico* (Contr. U. S. Nat. Herb. 23: 1303. 1924) as *Brachistus diversifolius* (Klotzsch) Miers should be known as *Capsicum diversifolium* (Klotzsch) Kuntze.

Lycianthes chiapensis (Brandeg.), comb. nov. *Solanum chiapense* Brandeg. Univ. Calif. Publ. Bot. 6: 192. 1915.

Nectouxia formosa HBK. Nov. Gen. & Sp. 3: 11. *pl. 193*. 1818.

Originally described from southern Mexico, this plant is known to range northward into the mountains of northern Mexico. So far as I know, it has not been reported previously as a member of the flora of the United States, but it may now be recorded from western Texas: Chisos Mountains, 1931, *C. H. Mueller 8276*. The species is one of numerous rare ones that were collected in this little-known range during the summer of 1931 by Mr. Mueller.

SCROPHULARIACEAE

Bacopa acuminata (Walt.) Robinson, var. **peninsularis** (Pennell), comb. nov. *Mecardonia acuminata* var. *peninsularis* Pennell, Proc. Acad. Phila. 71: 237. 1919.

Bacopa acuminata (Walt.) Robinson, var. **brevifolia** (Pennell), comb. nov. *Mecardonia acuminata* var. *brevifolia* Pennell, Proc. Acad. Phila. 71: 237. 1919.

Bacopa tenuis (Small), comb. nov. *Mecardonia tenuis* Small, Fl. Southeast. U. S. 1065, 1338. 1903.

Bacopa albida (Pennell), comb. nov. *Monocardia albida* Pennell, Proc. Acad. Phila. 72: 157. 1920.

Bacopa appressa (Pennell), comb. nov. *Caconapea appressa* Pennell, Proc. Acad. Phila. 72: 152. 1920.

Bacopa conferta (Pennell), comb. nov. *Caconapea conferta* Pennell, Proc. Acad. Phila. 72: 153. 1920.

Bacopa lilacina (Pennell), comb. nov. *Monocardia lilacina* Pennell, Proc. Acad. Phila. 72: 156. 1920.

Bacopa peduncularis (Benth.), comb. nov. *Herpestis peduncularis* Benth. Comp. Bot. Mag. 2: 56. 1836.

Calceolaria fruticosa (Pennell), comb. nov. *Fagelia fruticosa* Pennell, Proc. Acad. Phila. 72: 172. 1920.

Calceolaria nevadensis (Pennell), comb. nov. *Fagelia nevadensis* Pennell, Proc. Acad. Phila. 72: 176. 1920.

Castilleja Ortegae, sp. nov.—Herba ut videtur perennis erecta 30 cm. alta et ultra supra sparse laxe ramosa, ramis gracillimis viridibus sparsiuscule pilis fere minutis patentibus albidis glanduloso-pilosulis, laxe foliatis; folia sessilia membranacea laete viridia linearia integra 1.5–4 cm. longa 2–3 mm. lata attenuata, basin versus sensim attenuata, obscure trinervia, ad margines obscure scaberulo-ciliolata, aliter glabra; flores racemosi, racemis 4–5 cm. longis paucifloris rhachi dense glanduloso-pilosa, bracteis oblongis vel lineari-oblongis 5–8 mm. longis acutiusculis glanduloso-pilosulis, superioribus coccineis, inferioribus basin versus viridibus, pedicellis gracilibus suberectis usque ad 6 mm. longis glanduloso-pilosis; calyx coccineus 15–16 mm. longus tenuiter glanduloso-villosulus basi oblique rotundatus fere rectus postice breviter antice profunde fissus, segmentis apice late rotundatis; corolla longe exserta 23–28 mm. longa sparse glanduloso-villosula, galea attenuata luteo-viridi 10–12 mm. longa, labii lobis c. 1.5 mm. longis viridibus obtusis.—Mexico: Tapiquahuiz, Municipalidad de San Ignacio, Sinaloa, alt. 475 meters, in moist soil, May, 1931, *J. G. Ortega 6850* (herb. Field Mus. No. 636,832, type).

Castilleja spiranthoides, sp. nov.—Ut videtur annua, caule erecto gracili 25–30 cm. alto et ultra laxiuscule pilis pallidis patentibus viscido-villosulo simplici vel ramos paucos elongatos emittente inferne dense folioso, supra remotius folioso; folia alterna integra anguste linearia 1.5–3.5 cm. longa apicem versus longe anguste attenuata sessilia basi non dilatata viridia densiuscule glanduloso-pilosula uninervia suberecta; flores spicati, spicis simplicibus densis 4–18

cm. longis, rhachi dense viscido-villosa, bracteis lineari-oblongis floribus fere aequilongis laxe villosis supra medium purpureo-rubris apice interdum aliquid dilatatis et obtusis, interdum breviter tridentatis; calyx c. 15 mm. longus purpureo-ruber sparse breviter villosus leviter curvus postice breviter antice profunde fissus; corolla ut videtur pallida vel rubro-viridescens 12–20 mm. longa breviter exserta glabrata, galea tubo fere aequilonga longe attenuata, labio breviter obtuse trilobato; capsula ellipsoidea 6 mm. longa 3.5 mm. lata acutiuscula glabra; semina pallida profunde foveolata.—Mexico: Los Gusanos, San Ignacio, Sinaloa, in dry soil, March, 1931, *Jesús González Ortega 6896* (herb. Field Mus. No. 636,833, type).

Melasma hispidum Benth. in Hook. Comp. Bot. Mag. 1: 202. 1835. *Cacabus hondurensis* Donn. Smith, Bot. Gaz. 56: 60. 1913. *Eutheta hondurensis* Standl. Field Mus. Bot. 8: 325. 1931.

The writer erred in following Captain Smith in his reference of this plant to the Solanaceae, in which, it must be admitted, it would have been a perfectly good new genus! Fruiting specimens of the plant are so much like *Physalis* in gross aspect that the writer does not feel greatly humiliated in having referred his proposed new genus, *Eutheta*, to the Solanaceae rather than to the Scrophulariaceae.

The plants referable to the genus *Seymeria* have been treated monographically by Pennell (Proc. Acad. Phila. 77: 335–373. 1925), who has presented a detailed key for their determination. Unfortunately he has used for the genus the improper name *Afzelia*. Since *Seymeria* Pursh is a conserved name, it can not be replaced by *Afzelia*, even though the latter has priority of publication. The following name changes, therefore, are necessary for the proper listing of the species of this group.

Seymeria latiflora (Pennell), comb. nov. *Afzelia latiflora* Pennell, Proc. Acad. Phila. 77: 354. 1925.

Seymeria laxa (Pennell), comb. nov. *Afzelia laxa* Pennell, Proc. Acad. Phila. 77: 355. 1925.

Seymeria ramosissima (Pennell), comb. nov. *Afzelia ramosissima* Pennell, Proc. Acad. Phila. 77: 357. 1925.

Seymeria stricta (Pennell), comb. nov. *Afzelia stricta* Pennell, Proc. Acad. Phila. 77: 358. 1925.

Seymeria laciniata (Mart. & Gal.), comb. nov. *Gerardia laciniata* Mart. & Gal. Bull. Acad. Brux. 12, pt. 2: 26. 1845. *Afzelia laciniata* Pennell, Proc. Acad. Phila. 77: 359. 1925.

Seymeria madrensis (Pennell), comb. nov. *Afzelia madrensis* Pennell, Proc. Acad. Phila. 77: 361. 1925.

Seymeria sinaloana (Pennell), comb. nov. *Afzelia sinaloana* Pennell, Proc. Acad. Phila. 77: 365. 1925.

Seymeria coahuilana (Pennell), comb. nov. *Afzelia coahuilana* Pennell, Proc. Acad. Phila. 77: 366. 1925.

Seymeria chihuahuana (Pennell), comb. nov. *Afzelia chihuahuana* Pennell, Proc. Acad. Phila. 77: 367. 1925.

Seymeria Havardii (Pennell), comb. nov. *Afzelia Havardii* Pennell, Proc. Acad. Phila. 72: 507. 1921.

Seymeria glandulosa (Pennell), comb. nov. *Afzelia glandulosa* Pennell, Proc. Acad. Phila. 77: 369. 1925.

Seymeria tenuisecta (Pennell), comb. nov. *Afzelia tenuisecta* Pennell, Proc. Acad. Phila. 77: 370. 1925.

Seymeria texana (Gray), comb. nov. *S. bipinnatisecta* var. *texana* Gray in Torr. Bot. Mex. Bound. 117. 1859. *Afzelia texana* Small, Fl. Southeast. U. S. 1072, 1338. 1903.

BIGNONIACEAE

Tabebuia atrovirens (DC.), comb. nov. *Tecoma atrovirens* DC. Prodr. 9: 220. 1845.

Tabebuia chrysotricha (Mart.), comb. nov. *Tecoma chrysotricha* Mart. ex DC. Prodr. 9: 216. 1845.

Tabebuia hypodictyon (DC.), comb. nov. *Tecoma hypodictyon* DC. Prodr. 9: 217. 1845.

Tabebuia impetiginosa (Mart.), comb. nov. *Tecoma impetiginosa* Mart. Syst. Mat. Med. Bras. 54. 1843.

Tabebuia Ipe (Mart.), comb. nov. *Tecoma Ipe* Mart. Syst. Mat. Med. Bras. 55. 1843.

Tabebuia ochracea (Cham.), comb. nov. *Tecoma ochracea* Cham. Linnaea 7: 655. 1832.

GESNERIACEAE

Kohleria Deppeana (Schlecht. & Cham.) Fritsch.—In the *Trees and Shrubs of Mexico* (Contr. U. S. Nat. Herb. 23: 1327) no local name for this plant was reported. The following collection, therefore, is worthy of special record: Mexico: Fortín, Veracruz, February, 1883, *E. Kerber 324* (herb. Leningrad). Vernacular name, "arete de la India."

RUBIACEAE

Alibertia Duckei, sp. nov.—Arbor parva omnino glabra, ramulis crassiusculis subteretibus fusco-brunneis, internodiis elongatis vel saepe valde abbreviatis; vagina stipularis persistens indurata subtruncata 2–3 mm. alta; folia majuscula graciliter petiolata subcoriacea in sicco fusco-brunnea, petiolo 1.5–2 cm. longo; lamina oblongo-elliptica circa 15 cm. longa et 7 cm. lata apice acuta vel

subobtusa atque abrupte breviter acuminata, acumine anguste triangulari acuminato, basi acuta, supra lucida, subtus pallidior sublucida, costa gracili elevata, nervis lateralibus utroque latere c. 7 gracillimis prominulis arcuatis, nervulis obscuris laxe reticulatis; flores masculi terminales numerosi fasciculati sessiles vel brevissime crasse pedicellati dense congesti, bracteis parvis oblongo-lanceolatis intus sericeis; calyx late campanulatus, tubo 6–7 mm. longo, 6–8 mm. lato, lobis tubo paullo brevioribus anguste triangularibus attenuato-acuminatis minute ciliolatis; corolla viridis coriacea extus glabra, tubo crasso 2 cm. longo basi 5–6 mm. lato supra paullo angustato, lobis 4 elliptico-ovatis subobtusis intus minute puberulis 8–9 mm. longis.—Brazil: Obidos, civ. Pará, silva non inundabili regione Castanhal do Paiol, December 4, 1926, *A. Ducke 22917* (herb. Berol., type).

There is much doubt regarding the generic position of this plant, which seems to fit better, however, in *Alibertia* than in any other group of the Gardenieae. In *Alibertia* it is remarkable for its large flowers and especially for the large and deeply lobed calyx. The collector suggests that the flowers may be abnormal, perhaps as the result of insect attacks, but I find no basis for such a belief.

Alibertia hadrantha, sp. nov.—Arbor 27-metralis omnino glabra, ramulis teretibus fusco-brunneis; folia magna breviter petiolata coriacea, petiolo crasso c. 1 cm. longo supra plano subtus rotundato; lamina late elliptica vel oblongo-elliptica 12–18 cm. longa et 7–10 cm. lata vel ultra, apice rotundata et brevissime obtuse acuminata, basi rotundata atque abrupte contracta, breviter decurrens, supra in sicco fusco-olivacea lucida, costa nervisque vix prominentibus, venulis prominulis atque arcte reticulatis, subtus fere concolor, costa crassa elevata, nervis lateralibus utroque latere c. 11 elevatis valde arcuatis angulo lato divergentibus, venis vix prominulis inconspicuis; flores masculi terminales numerosi sessiles densissime capitato-aggregati; hypanthium brevissimum vix 1 mm. longum, calyce campanulato truncato 1.5 mm. longo extus glabro intus sericeo, disco annulari brevissimo; corolla extus glabra coriacea in alabastro 1 cm. longa, tubo cylindraceo recto 4 mm. crasso intus glabro, lobis late ovatis obtusis tubo duplo brevioribus; stamina prope basin tubi inserta, filamentis brevibus, antheris linearibus 8 mm. longis; stylus glaber.—Brazil: Territory of Acre, near mouth of Rio Macauhan, a tributary of Rio Yaco, basin of Rio Purús, on terra firma, September 2, 1933, *B. A. Krukoff 5735* (type in herb. N. Y. Bot. Gard.; photo. and fragm. in herb. Field Mus.).

The distinctive characters of the species are the unusually large leaves, the very dense, many-flowered staminate inflorescences, and the short corolla.

Alibertia itayensis, sp. nov.—Frutex 1.5–2-metralis, ramulis gracilibus teretibus fuscis, novellis dense puberulis, internodiis

brevibus; stipulae persistentes erectae triangulares sensim rigido-acuminatae 4–6 mm. longae dense puberulae; folia majuscula opposita breviter petiolata membranacea, petiolo gracili 7–11 mm. longo dense minute puberulo; lamina elliptica vel oblongo-elliptica, interdum obovato-elliptica, 7.5–12.5 cm. longa, 3.5–6 cm. lata, acuta vel abrupte acuta, acumine obtuso, basi acuta, supra in sicco viridescens, ad venas minute puberula, aliter glabra vel glabrata, venis venulisque prominentibus, subtus paullo pallidior, minute puberula vel pilosula vel serius glabrata, costa gracili prominente, nervis lateralibus utroque latere c. 8 gracillimis prominentibus angulo semirecto adscendentibus obliquis fere rectis prope marginem conjunctis, nervulis prominulis laxe reticulatis; flores masculi terminales sessiles c. 3; calyx truncatus cupulatus 1.5 mm. longus puberulus; corolla extus minutissime hispidulo-pilosula, tubo subcurvo 2.5 cm. longo basi fere 4 mm. lato supra sensim angustato, lobis albis 1.5–2 cm. longis oblongis acuminatis patentibus intus glabris; cetera ignota.—Peru: Soledad, on Río Itaya, Dept. Loreto, alt. 110 meters, in dense forest, September, 1929, *E. P. Killip & A. C. Smith 29741* (U. S. Nat. Herb., No. 1,463,008, type).

Closely related to *Alibertia pilosa* Krause, which differs in its smaller staminate flowers and much longer, harsher pubescence.

Alibertia longiflora Schum. in Mart. Fl. Bras. 6, pt. 6: 412. 1889.

Brazil: Top of Serra da Gramma, District Carangola, Minas Geraes, 1,700 meters, February, 1930, *Ynes Mexia 4285;* growing at extreme timber line; a spreading tree 5 meters high, along stream in open campo; flowers white, fragrant; one tree seen.

Alibertia macrantha, sp. nov.—Ramuli graciles teretes, vetustioribus brunnescentibus, novellis dense retrorso-hispidis, internodiis brevibus; stipulae non visae; folia majuscula breviter petiolata opposita membranacea, petiolo 4–8 mm. longo hispido; lamina elliptica vel oblongo-elliptica 8–13.5 cm. longa 3–6 cm. lata subabrupte acuminata, acumine angusto acute attenuato, basi acuta, supra sparse ad venas densius pilis longis patentibus hirsuta vel glabrata, venis venulisque prominulis, subtus densiuscule hirsuta, costa gracili elevata, nervis lateralibus utroque latere c. 8 gracillimis prominentibus angulo semirecto adscendentibus obliquis prope marginem conjunctis, nervulis prominulis laxe reticulatis; flores masculi terminales sessiles pauci; calyx cupulatus truncatus hispidulus 1.5–2 mm. longus; corolla alba, tubo subcurvo incrassato 4 cm. longo basi 4 mm. lato supra sensim angustato pilis brevibus patentibus hispidulo, lobis 5 anguste lanceolato-oblongis 3–3.5 cm. longis 8–10 mm. latis breviter acuminatis, prope basin subcontractis patentibus intus glabris, extus sparse hispidulis.—Brazil: Barreiras de Tabatinga, Rio Juruá, upper Amazon region, November 13, 1874, *J. W. H. Traill 449* (herb. Kew., type).

In the form of its leaves and flowers and in pubescence this plant is like *Alibertia pilosa* Krause, of the same general region. That species differs notably in its much smaller staminate flowers.

Alibertia macrophylla Schum. in Mart. Fl. Bras. 6, pt. 6: 394. 1889.

Of the specimens seen by the writer the following apparently are referable to this species: Brazil: Maranhão, *Pohl 5116* (photo. of type ex herb. Berol.). Without locality, *Spencer Moore 540* (photo. ex herb. Berol.). Cuyabá, Matto Grosso, *G. O. A. Malme 1853* (herb. Stockholm). Cuyabá, in "cerrado" subruderali, *Malme*, December 4, 1902 (S). Without locality, *Burchell 8234* (herb. Kew., herb. Paris).

Burchell states that the vernacular name is "mermelada d'espinha," and that the plant is a shrub of 2–3 meters. The three-celled globose solitary fruits, about 3 cm. in diameter, are densely covered with short spinelike projections. At maturity they are black and edible. Among the species of *Alibertia* this is easily recognized by its tuberculate fruit, which was not described by Schumann, although he states that the ovary is tuberculate. *Spencer Moore 540* was distributed as a new species of *Alibertia*.

Alibertia uniflora, sp. nov.—Arbuscula (?) omnino glabra, ramulis gracilibus rigidis, vetustioribus pallidis rimosis, novellis gracilibus pallide brunneis teretibus vel subangulatis, internodiis elongatis vel saepe valde abbreviatis; stipulae in vaginam incrassatam truncatam 1.5–2 mm. longam connatae; folia parva breviter petiolata coriacea, petiolo crassiusculo 3–5 mm. longo; lamina elliptica vel oblongo-elliptica 3.5–6 cm. longa 1.5–3 cm. lata abrupte acuminata acumine triangulari obtuso, basi acuta, supra in sicco fusca lucida, costa impressa, nervis venisque pallidis vix elevatis, subtus pallidior brunnescens, costa gracili elevata, nervis lateralibus utroque latere c. 8 gracillimis prominulis subarcuatis angulo latiusculo adscendentibus ante marginem junctis, venulis obsoletis; flores terminales solitarii sessiles, bracteolis in cupulam truncatam 1.5 mm. longam connatis; calyx truncatus 2 mm. longus resinosus; corolla in alabastro acuta 6 mm. longa extus dense sericea et resinosa, lobis tubo brevioribus.—British Guiana: Roraima, 1842–43, *Schomburgk 694* (herb. Paris, type).

The plant is easy of recognition because of the solitary staminate flowers. The foliage is similar to that of *A. myrciifolia* Schum.

Alseis peruviana, sp. nov.—Arbor, ramulis obtuse tetragonis vel subteretibus crassis densissime fulvo-hispidulis; stipulae deciduae 1–1.5 cm. longae ovatae acuminatae dense adpresso-pilosae; folia

magna fere sessilia opposita membranacea, petiolo 0.5–2.5 cm. longo fulvo-hispidulo; lamina rhombeo-oblanceolata vel cuneato-obovata 21–37 cm. longa 7–18 cm. lata acuta vel acuminata basin versus longissime sensim attenuata, supra in sicco fusca vel viridescens, densiuscule breviter patenti-pilosula, costa venisque prominulis, subtus fere concolor, densius pilis brevibus patentibus vel subadpressis fulvis hispidula, costa crassiuscula elevata, nervis lateralibus utroque latere c. 20 gracilibus prominentibus angulo latiusculo interdum fere recto adscendentibus subobliquis, nervulis prominulis arcte reticulatis; inflorescentiae terminales, floribus spicatis, spicis congesto-paniculatis 6–17 cm. longis c. 1 cm. crassis longe attenuatis dense multifloris, rhachi crassa dense fulvo-hispidula, floribus rectangule patentibus, dense fasciculatis et congestis, arcte sessilibus, bracteis ferrugineis anguste linearibus attenuatis glabratis patentibus persistentibus floribus paullo brevioribus; hypanthium late oblongum 1.2 mm. longum densissime fulvo-hispidulum, calyce 6-partito aequilongo, laciniis glabris vel glabratis inaequalibus lanceolato-oblongis acutis; corolla tubuloso-urceolaris 2.5–3 mm. longa extus dense minute fulvo-hispidula, lobis brevissimis incurvis; stamina inclusa; styli rami exserti crassiusculi recurvi.—Peru: Puerto Arturo, Yurimaguas, Dept. Loreto, in forest, alt. 200 meters, November 15, 1929, *Llewelyn Williams 5030* (herb. Field Mus. No. 623,099, type). Juan Guerra, near Tarapoto, Dept. San Martín, December 30, 1929, *Williams 6916* (sterile).

Vernacular names, "mishu-quiro" and "palo blanco."

No species of *Alseis* has been reported hitherto from Peru. This one is a relative of the Brazilian *Alseis floribunda* Schott, which has usually larger flowers and long-exserted stamens.

Amaioua ursina Standl. Field Mus. Bot. 8: 168. 1930.

The species was based upon two collections from British Guiana. It may now be reported from another country: French Guiana: *Mélinon* (herb. Paris).

Amphidasya, gen. nov.—Frutices erecti vel herbae, caulibus simplicibus crassis; stipulae intrapetiolares magnae persistentes multifidae, laciniis numerosis linearibus vel filiformibus inaequalibus; folia opposita (vel interdum alterna?) magna membranacea longipetiolata integra; flores mediocres in axillis dense aggregatis, bracteis multifidis magnis persistentibus floribus longioribus; hypanthium turbinatum vel oblongum; calycis lobi lineares vel fere filiformes maxime elongati saepe insuper paullo dilatati et interdum colorati; corollae tubus gracilis elongatus, supra vix ampliatus, lobis angustis oblongis tubo brevioribus; antherae lineares dorsifixae inclusae; ovarium biloculare; bacca oblonga vel oblongo-clavata; semina numerosissima ferruginea minuta.

Type species, *Sabicea ambigua* Standl.

Amphidasya ambigua (Standl.), comb. nov. *Sabicea ambigua* Standl. Field Mus. Bot. 7: 49. 1930.

Colombia: Type collected in Colombia, without definite locality, *Triana 1847* (herb. Kew.). Coteje, Río Timbiquí, *Lehmann BT519* (herb. Kew.). Intendencia del Chocó, La Concepción, 15 km. east of Quibdó, 75 meters, April–May, 1931, *Archer 1993* (U. S. Nat. Herb.). Provincias de Chocó y Barbacoas, *Triana 1847* and *1848* (herb. Paris); vernacular name "yerba de maleficio."

The Archer collection is by far the best and most ample that I have seen of this plant. The collector states that it has a single stem and is a shrub 30–100 cm. high; the bracts and calyx lobes are white.

Also to be referred to the genus is the following plant:

Amphidasya umbrosa (Wernham), comb. nov. *Sabicea umbrosa* Wernham, Monog. Sabicea 27. *pl. 1, f. 1.* 1914.

The two plants are clearly congeneric, but differ conspicuously in foliage and flower characters. They are similar in habit, leaf size, inflorescence, and especially in their strange stipules and bracts. Wernham referred the second species without hesitation to *Sabicea*, merely remarking that it was the only American representative of the subgenus *Stipulariopsis*, otherwise African. The two Colombian plants diverge so conspicuously from even the African species of *Sabicea* that it does not seem reasonable to refer them to the same genus. None of the Colombian material thus far available is completely satisfactory for study, especially of the flower and fruit characters, but it seems to me that the nature of the stipules alone is quite enough to afford a basis for segregating the Colombian plants as a distinct genus. It is probable that when complete material has been assembled for examination, other good characters will be found for separating the genera even more clearly. One familiar with the genus *Sabicea*, upon seeing either of the Colombian plants, is not likely to suspect their relationship with that group.

Amphidasya bullata, sp. nov.—Caulis crassus dense breviter pilosulus; stipulae virides c. 2.5 cm. longa herbaceae fere ad basin multifidae, laciniis subulatis dense sordide puberulis; folia opposita vel alterna longe petiolata firme membranacea, petiolo gracili 4.5–6.5 cm. longo dense et patule fulvo-pilosulo; lamina oblongo-elliptica vel obovato-elliptica 13–14.5 cm. longa 6–7 cm. lata abrupte cuspidato-acuminata, acumine anguste triangulari longe attenuato c. 1 cm. longo, basi acuta vel obtusa, valde bullata, supra in sicco fusco-viridis, glabra, venis valde impressis, subtus paullo pallidior, ad venas densissime patule pilosula, costa gracili elevata, nervis

lateralibus utroque latere c. 15 gracilibus elevatis angulo latiusculo adscendentibus obliquis subarcuatis prope marginem conjunctis, nervulis prominentibus et laxe reticulatis; flores in axillis dense aggregati numerosi sessiles vel subsessiles, bracteis stipulis conformibus et aequilongis; calyx ad basin partitus, laciniis viridibus linearibus attenuatis 1–1.5 cm. longis vel ultra dense fulvo-puberulis; bacca clavato-oblonga c. 1 cm. longa et 4 mm. crassa basin versus paullo attenuata sparse puberula calyce persistente coronata.—Colombia: Provincias de Chocó y Barbacoas, "alt. 100" (meters?), May, 1853, *J. Triana 3315* (herb. Paris, type).

Vernacular name, "yerba de maleficio."

The present plant is obviously related to *A. umbrosa* and *A. ambigua*. It resembles more closely *A. umbrosa*, but the latter has much larger leaves on greatly elongate petioles, and the blades are not bullate as in the plant here described.

Anisomeris laxiflora, sp. nov.—Ramuli graciles teretes recti fusco-ferruginei lenticellati ad nodos sparse adpresso-hispidi, internodiis elongatis foliis brevioribus; stipulae lanceolato-triangulares acuminatae 3–4 mm. longae erectae sparse adpresso-hirsutae; folia mediocria breviter petiolata subcoriacea in sicco fusca, petiolo crassiusculo 3–6 mm. longo sparse hispido; lamina elliptica vel oblongo-elliptica 8–14.5 cm. longa 4–7.5 cm. lata abrupte breviter obtuso-acuminata, basi obtusa vel acuta, supra glabra, subtus paullo pallidior ad costam nervosque sparse adpresso-hispida vel glabrata, in axillis interdum dense barbata, costa gracili elevata, nervis lateralibus utroque latere c. 6 angulo semirecto adscendentibus leviter arcuatis prominentibus prope marginem junctis, venulis obscuris laxissime reticulatis; inflorescentiae terminales vel ex axillis supremis nascentes graciliter 2–4 cm. longe pedunculatae cymosae laxe multiflorae basi trichotomae densae 2–6 cm. latae, ramis sparse hispidulis vel glabris, floribus 1–3 mm. longe pedicellatis vel ex parte sessilibus, bracteis minutis vel obsoletis; hypanthium clavatum basi acutum 2–2.5 mm. longum sparsissime adpresso-hispidulum vel glabrum, calyce 1 mm. longo breviter lobato, lobis semiorbicularibus apice rotundatis; corolla extus sparse strigosa, tubo gracili 11–12 mm. longo superne vix dilatato, lobis 2.5 mm. longis patentibus ovato-oblongis obtusis intus glabris; antherae subexsertae recurvae; drupa bilocularis cylindracea 8–10 mm. longa fere 3 mm. lata glabra apice calyce persistente coronata.—Colombia: Without locality, *José Celestino Mutis 3673* (U. S. Nat. Herb. No. 1,560,379, type; fragm. in herb. Field Mus.), *2955, 779*.

Remarkable for the lax, many-flowered inflorescence, which, like the corollas, is strongly suggestive of some species of *Rondeletia*.

Arcytophyllum ericoides (Willd.), comb. nov. *Hedyotis ericoides* Willd. ex R. & S. Syst. Veg. 3: 527. 1819. *Arcytophyllum parvifolium* Krause, Bot. Jahrb. 40: 313. 1908. *A. virgatum* Standl. Field Mus. Bot. 4: 325. 1929.

When *A. virgatum* was described as new, no material of *A. parvifolium* was available for comparison, but judging from description alone, the plant published as *A. virgatum* appeared to be quite distinct. A photograph and fragment of the type specimen of *A. parvifolium* received from the Berlin herbarium show clearly that the two plants are identical. There is at hand also a photograph of the type specimen of *Hedyotis ericoides*, from the Willdenow Herbarium, and this seems to represent the same species. Weddell in the *Chloris Andina* considered *Hedyotis ericoides* a mere variety of *H. thymifolia* R. & P., but the two are quite different, as species go in this genus of closely related forms. *Hedyotis ericoides* was described from the high mountains of Colombia, but it has not been collected recently in that country. It is known also from Peru.

Arcytophyllum filiforme (R. & P.), comb. nov. *Hedyotis filiformis* R. & P. Fl. Peruv. 1: 57. *pl. 87, f. b.* 1798. *H. conferta* R. & P. loc. cit. *pl. 87, f. a.* 1798.

So far as I am able to determine from examination of a considerable number of specimens, including authentic material, the plants to which the names listed above apply are conspecific. There are numerous other synonyms, which it is not necessary to list here.

Arcytophyllum Macbridei, sp. nov.—Frutex erectus dense ramosus usque ad 30 cm. altus vel ultra, ramis crassis, ramis vetustis defoliatis sed stipulis persistentibus vestitis, crassis rigidis saepe plus minusve tortuosis, junioribus omnino stipulis occultis; stipulae subimbricatae triangulari-ovatae glabrae vel puberulae apice setis numerosis brevibus vel saepius valde elongatis onustae; folia subsessilia lanceolato-oblonga vel lineari-oblonga 3–11 mm. longa glabra rigida coriacea apice acuta vel acutiuscula mutica basi obtusa lucidissima scaberulo-ciliata supra ad costam sulcata, subtus pallidiora obtuse carinata, subdivaricata vel adscendentia et saepe subrecurva; flores numerosi ad apices ramorum dense capitato-congesti et capitulum globosum interdum efformantes sessiles; hypanthium globosum glabrum; sepala erecta rigida acuta 2–3 mm. longa ovato-oblonga acuta erecta; corolla c. 6 mm. longa extus glabra, lobis patentibus oblongis acutiusculis intus glabris; antherae exsertae; capsula subglobosa c. 2.5 mm. longa.—Peru: Without locality, *Weberbauer 6102* (herb. Field Mus. No. 618,875, type). Trail from Chachapoyas to Moyobamba, *Williams 7576*. Tambo de Laurel, between Dunia and Chachapoyas, Dept. Amazonas, *Raimondi 1048* (herb. Berol.). Cutervo, Dept. Cajamarca, *Raimondi 4968* (B), *4679* (B); *Jelski 6266* (B).

Heretofore I have confused material of this species with *A. setosum* (R. & P.) Standl., to which it is most closely related. In *A. setosum,*

however, the leaves are distinctly setiferous at the apex, and there are other but less conspicuous differences between the two species.

Bathysa Nicholsonii Schum. in Mart. Fl. Bras. 6, pt. 6: 236. 1889.

Brazil: Viçosa, on bank above small valley, Minas Geraes, 680 meters, January, 1930, *Ynes Mexia 4211a;* a slender tree 10 meters high; bark light gray; flowers green; only one tree found. Viçosa, Fazenda de Grasiuma, 700 meters, on wooded slope associated with bamboo and taller trees, 700 meters, May, 1930, *Mexia 4695;* a tree 8 meters high; leaves sometimes 63 cm. long and 31 cm. wide; fruit green and dry; occasional.

Both the collections cited have almost glabrous leaves, those of the typical form being copiously pubescent. The second of the collections has capsules as much as 7 mm. long, almost twice as large as described by Schumann. I believe, however, that both specimens represent mere forms of *B. Nicholsonii.*

Borreria Bradei, sp. nov.—Perennis (?), erecta, herbacea vel suffruticosa usque ad 40 cm. alta ramosa, caulibus gracilibus rigidis subteretibus vel subangulatis luteo-viridibus glabris, internodiis plerumque foliis longioribus; vagina stipularis 1.5–2 mm. longa pilosa setis paucis subulatis 3–4 mm. longis pilosulis instructa; folia parva in sicco luteo-viridia lanceolata vel oblongo-lanceolata 12–20 mm. longa 3–7 mm. lata acuminata basi in petiolum brevem attenuata, supra scaberula costa nervisque plus minusve impressis, subtus pallidiora sparse pilis longis albidis rigidis pilosa, costa nervisque paucis valde elevatis, margine revoluto; flores capitati, capitulis plerumque terminalibus 1–2 axillaribus interdum axillis supremis insertis 8–10 mm. latis densissime multifloris, terminalibus bracteis foliaceis 2 usque ad 7 mm. longis fulcratis, bracteis patentibus fere liberis, floribus arcte sessilibus; hypanthium anguste clavatum glabratum 2 mm. longum; sepala 4 lineari-attenuata 3 mm. longa erecta sparse pilosula; corolla alba extus prope apicem hispidula aliter glabra 4–4.5 mm. longa, tubo crasso supra vix dilatato, lobis 4 rotundatis tubo duplo brevioribus; stamina in fauce corollae inserta subexserta, filamentis brevibus gracillimis glabris, antheris late oblongis brevibus; stylus filiformis apice profunde bifidus, ramulis gracillimis.—Brazil: State of Rio de Janeiro, Therezopolis, Pedra Chapadão, alt. 1,950 meters, November 8, 1929, *A. C. Brade 9953* (Mus. Nac. Rio de Jan. *No. 22770;* type specimen in herb. Berol.).

As indicated by the bright yellow coloration of the dried specimens, as well as by the bifid style, the plant belongs to Schumann's group *Latifoliae,* and it is related to *Borreria latifolia* (Aubl.) Schum. The latter is a prostrate or procumbent plant of distinctive appearance with numerous flower heads, nearly all of which are axillary.

Borreria Dussii, sp. nov.—Herba perennis saepe suffruticosa ramosa, ramis gracilibus et elongatis vel interdum brevibus crassisque subteretibus vel subangulatis, vetustioribus ferrugineis glabris, internodiis foliis brevioribus; vagina stipularis laxa fere 2 mm. longa plus minusve scabra setis paucis rigidis c. 1 mm. longis ciliata; folia mediocria vel parva oblonga vel elliptico-oblonga 5–24 mm. longa 2.5–7 mm. lata obtusa vel acuta basi in petiolum brevem acute angustata carnosula et in sicco saepe subcoriacea glabra, saepe scaberulo-ciliata, 1-nervia, subtus paullo pallidiora; flores in capitula terminalia densa multiflora aggregata, capitulis 6–7 mm. latis subglobosa foliis 2 involucrata; hypanthium glabrum, sepalis 4 spathulatis apice obtusis vel rotundatis carnosis erectis 1.5 mm. longis; corolla glabra c. 2 mm. longa, lobis 4 acutiusculis; capsula glabra fere 2 mm. longa calyce coronata septicide bivalvis.—Guadeloupe: Seacoast, Vieux Fort, *Duss* (herb. Paris, type). Without locality, *Duss 2775* (herb. Field Mus., sterile). Vieux Fort, dry rocky places of littoral savannas, in 1893, *Duss 312* (P). Without locality, in 1841, *Perrottet* (P); *L' Herminier* (P). Without locality, probably from Guadeloupe (herb. Guyanensi), *L. C. Richard* (P).

The material of this apparently distinct species, although consisting of several collections, is not in altogether satisfactory condition for study, the best sheet being the last one cited, which is not accompanied by locality data. The plant appears to be related to *B. laevis* (Lam.) Griseb., but differs conspicuously in habit and leaf characters, as well as in the form of sepals and capsules. I have seen no similar specimens from other Antillean islands.

Borreria latifolia (Aubl.) Schum.—There may be mentioned here a recent collection of this species, worthy of note only because of the data accompanying it: Colombia: Quibdó, Río Atrato, Intendencia del Chocó, *W. A. Archer 2105* (U. S. Nat. Herb.). The vernacular name is reported as "yerba dulce," and it is stated that the weedy plant is employed in local medicine because of its supposed diuretic properties.

Borreria suaveolens Mey. var. **linoides** (DC.), comb. nov. *Borreria linoides* DC. Prodr. 4: 548. 1830. *B. tenella* (HBK.) Cham. & Schlecht. var. *linoides* Schum. in Mart. Fl. Bras. 6, pt. 6: 55. 1888.

Borreria suaveolens Mey. var. **platyphylla** (Schum.), comb. nov. *B. tenella* (HBK.) Cham. & Schlecht. var. *platyphylla* Schum. in Mart. Fl. Bras. 6, pt. 6: 55. 1888.

Borreria vulpina Standl. Field Mus. Bot. 8: 389. 1931.

Of this distinct species, recently described, a second collection has come to hand recently: Ariça near Cuyabá, State of Matto Grosso, Brazil, in "cerrado" arenoso subhumido, May, 1903, *G. O.*

A. Malme 3252 (herb. Stockholm). The plants are immature, and without mature fruit, hence it still is impossible to determine whether the species is more properly referable to *Borreria* or *Mitracarpus*.

Borreria Wunschmanni Schum. in Mart. Fl. Bras. 6, pt. 6: 53. 1888.

The following collection apparently is referable to this rare species: Santo Antonio, Matto Grosso, Brazil, loco argillaceo subhumido parce graminoso, December, 1893, *G. A. Malme 1248* (herb. Stockholm). I have seen no material of the species, but there is in the herbarium of Field Museum a photograph of *Burchell 8977*, and this agrees perfectly with the Malme collection. Schumann seems to have exaggerated somewhat his description of the bractlets and sepals, if the new material is conspecific with the collections that he cites.

Bouvardia Loeseneriana, sp. nov.—Frutex ramosus, ramis subteretibus glabris fusco-brunnescentibus, vetustioribus pallide cinnamomeis vel albidis, internodiis plerumque elongatis; stipulae in vaginam persistentem subtruncatam apice setis paucis elongatis onustam connatae; folia opposita crasse membranacea breviter petiolata, petiolo 3–5 mm. longo crassiusculo longe ciliato; lamina ovata vel late elliptico-ovata 2.5–5 cm. longa 1.5–3.5 cm. lata acuta vel breviter sensimque acuminata basi late rotundata vel subcordata ciliata sed aliter glabra, supra in sicco fusca interdum sublucida nervis subimpressis venulis plus minusve prominulis, subtus conspicue pallidior, nervis ut costa prominentibus plerisque prope basin nascentibus angulo acuto arcuato-adscendentibus, venulis obsoletis; flores ad apices ramulorum cymoso-corymbosi numerosi conferti brevissime crasse pedicellati, inflorescentia basi foliaceo-bracteata; hypanthium c. 1 mm. longum subglobosum glabrum, calyce 4–5 mm. longo vel post anthesin accrescente profunde lobato, laciniis anguste triangularibus vel triangulari-lanceolatis longe attenuatis ad margines scaberulis viridibus; corolla ut videtur albida extus dense minute papilloso-puberula, tubo gracili 15–18 mm. longo supra sensim dilatato, lobis oblongo-ovalibus 3–4 mm. longis obtusis suberectis; stylus gracilis lobis corollae paullo longior. —Mexico: Texquitzín near Chilapa, Guerrero, October 26, 1929, *L. Schultze 89* (type in herb. Berol.).

Perhaps a relative of *Bouvardia multiflora* (Cav.) Schult., of the same general region, but in that species the corolla is glabrous outside. The fine dense pubescence of the corolla seems to be distinctive for *B. Loeseneriana*.

The present species is named for Dr. Th. Loesener, whose systematic studies have added much to the present knowledge of the Mexican flora.

Bouvardia multiflora (Cav.) Schult. in R. & S. Syst. Veg. Mant. 3: 118. 1827. *Aeginetia multiflora* Cav. Anal. Cienc. Nat. 3: 131. 1801. *B. xylosteoides* Hook. & Arn. Bot. Beech. Voy. 428. 1840.

In the *North American Flora* (32: 111. 1921) *Bouvardia xylosteoides* Hook. & Arn. was listed as a doubtful species, with the suggestion that it might not be a member of the genus *Bouvardia*. A specimen of the type collection—*Andrieux 333* collected near Oaxaca, Mexico—has been seen recently by the writer among the Rubiaceae of the Delessert Herbarium. The plant is clearly *Bouvardia multiflora*, although the leaves are somewhat smaller than normal for that species. *Andrieux 224* from Mexico represents the same form, which is not worthy of separation even as a variety.

Bouvardia villosa Standl. N. Amer. Fl. 32: 107. 1921.

Mexico: Lower mountains near Mitla, Oaxaca, July, *G. Andrieux 335* (herb. Delessert).

Calycophyllum Spruceanum (Benth.) Hook. f. ex Schum. in Mart. Fl. Bras. 6, pt. 6: 191. 1889. *Eukylista Spruceana* Benth. Kew Gard. Misc. 5: 230. 1853.

There may be reported a further Bolivian collection of the species, of interest because the native name is given with the specimen: Bolivia: In forest, Río Palometilla, Dept. Santa Cruz, 400 meters, *Steinbach 7905* (herb. Stockholm). Vernacular name, "bayabochi."

Cephaelis cotejensis, sp. nov.—Arbuscula 4-metralis, ramulis crassis subteretibus glabris, internodiis 2–4 cm. longis; stipulae perfectae non visae; folia magna decussata membranacea brevissime petiolata, petiolo crasso 1–2.5 cm. longo; lamina late oblanceolato-oblonga 27–35 cm. longa 9–12 cm. lata apice late obtusa vel rotundata et breviter abrupte protracta, acumine oblongo-triangulari obtuso c. 8 mm. longo, basin versus longissime sensim attenuata, supra in sicco fusco-olivacea glabra costa prominente nervis vix elevatis, subtus pallidior ubique dense minute scaberulo-puberula, costa gracili elevata, nervis lateralibus utroque latere c. 25 gracilibus prominentibus arcuatis angulo lato adscendentibus in marginem desinentibus, nervulis prominulis laxe reticulatis; inflorescentia terminalis subsessilis densissima spiciformis 10–16 cm. longa 3.5 cm. lata, bracteis numerosissimis imbricatis late rotundatis vel orbiculari-spathulatis vel apice fere truncatis 1.5 cm. longis vel ultra et aequilatis dense puberulis crassis; drupae 5 mm. longae.—Colombia: Coteje on Río Timbiquí, alt. 300 meters or less, November, 1898, *F. C. Lehmann 9022* (type in herb. Berol.).

According to the collector, the flowers are flesh-red and the bracts magenta-red. The flowers are so poorly preserved that I have not been able to describe their structure.

This plant must be a strikingly showy one in life, and it represents a clearly distinct and more or less abnormal species for the genus. It is a relative of *Cephaelis Trianae* Standl., also Colombian, but in that the leaves have only about thirteen pairs of nerves, and the inflorescences are but 4–4.5 cm. long.

Cephaelis crassifolia Standl. Field Mus. Bot. 7: 77. 1930.

For this species a second collection is now available for study: Colombia: Intendencia del Chocó, La Concepción, 15 km. east of Quibdó, 75 meters, April–May, 1931, *W. A. Archer 2088* (U. S. Nat. Herb.). A slender tree 6 meters high; fruit black.

Cephaelis crebrinervia, sp. nov.—Frutex omnino glaber, ramulis crassis subteretibus fuscis rimosis, internodiis abbreviatis; stipulae in vaginam 2 mm. longam incrassatam connatae, vagina in lobos 4 breves erectos lineari-subulatos desinente; folia majuscula breviter petiolata opposita papyracea, petiolo gracili 9–12 mm. longo; lamina oblonga vel oblanceolato-oblonga 14–21 cm. longa 4.5–7 cm. lata abrupte acuminata vel cuspidato-acuminata, acumine 1–1.5 cm. longo acuto, basin versus longiuscule sensim angustata, supra in sicco cinereo-viridis, costa venisque prominulis, subtus concolor, costa gracili elevata, nervis lateralibus utroque latere c. 25, aliis 1–3 fere aequalibus parallelis inter paria interpositis, tenerrimis prominentibus angulo lato fere recto divergentibus fere rectis prope marginem conjunctis, nervulis vix prominulis laxe reticulatis; inflorescentia terminalis capitata erecta 4 cm. longe pedunculata corollis exclusis 1 cm. longa et 2 cm. lata dense multiflora basi 4-bracteata, floribus dense congestis sessilibus; bracteae exteriores oblongo-lanceolatae liberae 8–10 mm. longae patentes attenuatae concavae; hypanthium obconicum 1 mm. longum, calyce late campanulato 1.5 mm. longo subtruncato vel remote repando-denticulato; corolla alba extus glabra in alabastro apice acuta et brevissime corniculata, tubo gracili 14 mm. longo fauce abrupte late dilatato intus non barbato, lobis 5 linearibus patentibus 5 mm. longis acutis intus glabris; antherae 5 oblongo-lineares semiexsertae.—Brazil: In silvis non inundatis loco Antonio Lemos prope flumen Tajapurú aestuarii amazonici, civ. Pará, September 27, 1919, *A. Ducke 15351* (herb. Berol.).

The relationship of the plant is obscure, and it is not altogether satisfactory to refer the species to the genus *Cephaelis*, although the form of the inflorescence seems to necessitate its reference there. The leaves, with their close venation, suggest those of some of the Brazilian species of *Ixora*.

Cephaelis hastisepala (Muell. Arg.) Standl. Field Mus. Bot. 8: 375. 1931. *Psychotria hastisepala* Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 350. 1881.

Brazil: Fazenda de Grasiuma, Viçosa, Minas Geraes, 700 meters, in forest on slope, *Ynes Mexia 4704;* a shrub 3 meters high; fruit bright purple when mature; abundant, singly and in colonies, widespread in woods. Viçosa, 690 meters, on hills in cut-over woods, *Mexia 4370;* a shrub with waxy-white flowers; corolla early deciduous; occasional.

Cephaelis Malmei, sp. nov.—Frutex arborescens 2–3-metralis praeter inflorescentias omnino glaber, ramulis gracilibus rigidis subteretibus olivaceis, internodiis brevibus vel usque ad 2.5 cm. longis; stipulae persistentes incrassatae 2–3 mm. longae breviter subulato-apiculatae; folia mediocria vel melius subparva breviter petiolata crasse membranacea, petiolo crassiusculo 4–8 mm. longo; lamina oblanceolato-oblonga vel obovato-oblonga 6–12 cm. longa 2.4–4.5 cm. lata abrupte vel sensim acuminata, acumine angusto attenuato acuto, basi cuneato-attenuata vel interdum abrupte contracta et decurrens, supra in sicco laete olivaceo-viridis et interdum lucida, costa venisque pallidis prominulis, subtus paullo pallidior, costa gracili elevata, nervis lateralibus utroque latere c. 10 gracilibus prominentibus angulo lato adscendentibus pallidis leviter curvis remote a margine laxe conjunctis, nervulis prominulis laxe reticulatis; flores capitati, capitulis terminalibus et axillaribus parvis paucifloris sessilibus c. 6 mm. latis, bracteis arcte adpressis incrassatis infra viridibus 4–5 mm. longis et latioribus, supra pallidis et ad margines incrassatis et puberulis, floribus arcte sessilibus; calyx ad apicem baccae persistens pallidus cyathiformis breviter dentatus, dentibus late triangularibus acutiusculis prope apices dense puberulis; bacca ellipsoidea 5–6 mm. longa glabra lucida.—Brazil: Santa Anna da Chapada, State of Matto Grosso, in forest, September 27, 1902, in fruit, *G. O. A. Malme 2401* (herb. Stockholm, type). Santa Anna da Chapada, August 3, 1902, *Malme 2191* (S).

Apparently this plant is referable to Mueller's group *Monocephalae* of the subgenus *Cephaelis,* as treated by Mueller in the *Flora Brasiliensis,* but it can not be referred to any of the species placed there, nor does it agree with any other *Cephaelis* of which I have seen material. Its outstanding characters are the small, closely sessile heads and the broad, pubescent calyx lobes.

Cephaelis Mosenii, sp. nov.—Suffrutex omnino glaber decumbens vel procumbens ad nodos inferiores radicans 30–50 cm. altus, caulibus simplicibus vel parce ramosis teretibus stramineis vel pallide olivaceis, internodiis plerumque foliis aequilongis; stipulae persistentes glabrae virides 3–4 mm. longae breviter connatae profunde bilobae, lobis triangularibus longe lineari-attenuatis interdum subrecurvis; folia mediocria brevissime petiolata opposita membranacea, petiolo 1–3 mm. longo; lamina oblongo-elliptica usque ad late oblonga 5–8 cm. longa 2.5–3.5 cm. lata acuta vel breviter abrupte acuminata, acumine triangulari acuto, basi acuta usque ad rotundata, supra in sicco pallide viridis, costa venisque vix

prominulis pallidis, subtus fere concolor, costa gracili pallida prominente, nervis lateralibus utroque latere c. 9 obliquis pallidis gracilibus prominentibus arcuatis prope marginem arcuato-conjunctis, nervulis prominulis laxe reticulatis; flores capitati sessiles, capitulis terminalibus solitariis arcte sessilibus paucifloris, bracteis exterioribus 9–13 mm. longis oblongis vel anguste ovatis in sicco pallidis striatis acutis vel interdum longiacuminatis erectis, capitulis fere duplo longioribus quam latis, bracteis interioribus paullo brevioribus quam latis, bracteis interioribus paullo brevioribus plerumque linearibus viridibus; hypanthium glabrum turbinatum 2 mm. longum; calyx profunde 5-fidus, laciniis viridibus linearibus 5–6 mm. longis attenuatis; corolla extus glabra, tubo gracili 10 mm. longo supra paullo dilatato fauce dense barbato, lobis 5 patentibus 4–5 mm. longis oblongis attenuato-acutis intus minutissime puberulis vel fere glabris; antherae lineares fere 2 mm. longae, filamentis breviter exsertis.—Brazil: Sororocaba, Prov. São Paulo, in silvis humidis, January 15, 1875, *Hjalm. Mosén 3182* (herb. Stockholm, type); December 20, 1874, in silva primaeva, *Mosén 3018* (S).

Noteworthy for the very narrow and few-flowered, terminal, sessile flower heads, subtended by unusually narrow bracts.

Cephaelis plagiantha, sp. nov.—Herbacea vel suffruticosa, caule simplici c. 30 cm. alto gracili erecto vel basi decumbente in sicco fusco glabro, internodiis 2–10 cm. longis; stipulae suberectae persistentes c. 5 mm. longae triangulares ad medium laciniatae glabrae; folia opposita petiolata membranacea in sicco fusca parva, petiolo gracili 6–15 mm. longo glabro; lamina anguste oblanceolato-oblonga 6.5–9.5 cm. longa 2–2.5 cm. lata breviter acute acuminata basin versus longe attenuata, supra glabra costa venisque non elevatis, subtus paullo pallidior primo ad nervos sparse villosula vel puberula cito glabrata, costa gracili paullo elevata, nervis lateralibus utroque latere c. 8 angulo lato adscendentibus gracillimis vix prominentibus subarcuatis, nervulis obsoletis; inflorescentiae axillares capitatae pauciflorae solitariae 3–4 mm. longe pedunculatae 5–6 mm. latae, floribus arcte sessilibus; bracteae exteriores anguste ovatae 6–7 mm. longae acuminatae profunde laciniatae et plus minusve ciliatae; calyx vix 1 mm. longus, laciniis filiformi-linearibus; corolla alba c. 7 mm. longa glabrata, lobis tubo brevioribus; antherae lineares exsertae 1.5 mm. longae; fructus oblongus 9 mm. longus glaber, pyrenis 2 angustis 6 mm. longis.—Peru: Dept. Loreto, Florida, Río Putumayo, at mouth of Río Zubineta, alt. 200 meters, in forest, March–April, 1931, *G. Klug 2045* (herb. Field Mus. No. 641,376, type).

Easy of recognition because of its herbaceous habit, low stature, simple stems, and small few-flowered axillary flower heads. Apparently referable to Mueller's group *Ipecacuanhales*. The species is altogether different from anything reported heretofore from Peru.

Cephaelis guarupana, sp. nov.—Frutex parum ramosus omnino glaber, ramis crassiusculis teretibus in sicco olivaceis, internodiis brevibus; stipulae fere liberae persistentes virides, superiores 1.5–2 cm. longae fere ad medium bilobae striato-nerviae, lobis triangularibus acuminatis; folia breviter petiolata mediocria firme membranacea, petiolo 8–15 mm. longo; lamina anguste oblanceolato-oblonga 9–18 cm. longa 3–5 cm. lata breviter subabrupte acuminata basi attenuato-acuminata in sicco cinereo-viridis vel olivacea, costa ut nervis supra prominentibus, subtus fere concolor, costa gracili elevata, nervis lateralibus utroque latere c. 20 gracillimis prominentibus arcuatis angulo fere recto divergentibus, nervulis obsoletis; inflorescentia terminalis c. 8 mm. longe pedunculata capitiformis densissime multiflora 2–2.5 cm. longa et aequilata, bracteis numerosis albis, exterioribus late oblongis vel obovatis c. 1.5 cm. longis obtusis vel acutis, interioribus multo angustioribus saepe longe acuminatis, floribus arcte sessilibus; corolla alba extus glabra, tubo gracili 12 mm. longo supra vix dilatato, lobis patentibus oblongis 4–5 mm. longis.—Brazil: Guarupá, civ. Pará, silva partim secundaria non inundabili, January 16, 1916, *A. Ducke 23113* (herb. Berol., type).

Here may be referred also, at least tentatively, *Ducke 23040* from Obidos, collected in January, 1916.

Cephaelis spathicalyx (Muell. Arg.) Standl. Field Mus. Bot. 4: 335. 1929. *Psychotria spathicalyx* Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 319. *pl. 50, f. 2.* 1881.

Brazil: "Environs de Rio de Janeiro," *Glaziou 12035* (herb. Berol., herb. Kew.). Organ Mountains, *John Miers 4114* (K).

Cephaelis leucantha (Krause), comb. nov. *Uragoga leucantha* Krause, Bot. Jahrb. 40: 345. 1908.

Cephaelis schraderoides (Krause), comb. nov. *Uragoga schraderoides* Krause, Bot. Jahrb. 40: 344. 1908.

Cephaelis tricholoba (Muell. Arg.), comb. nov. *Psychotria tricholoba* Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 343. 1881.

Cephaelis tomentosa (Aubl.) Vahl.—This species is the most commonly collected of all tropical American Rubiaceae, for collectors, especially novices, seem never able to resist so showy and handsome a plant. The following collections are mentioned here only because of the data accompanying them: Colombia: Quibdó, Río Atrato, *W. A. Archer 2106.* La Concepción, Río Atrato, *Archer 2006* (both specimens in U. S. Nat. Herb.). The vernacular name is recorded as "sombrerito del diablo." It is stated that a decoction of the plant is employed locally as a remedy for asthma and as an emmenagogue and expectorant.

Cephaelis umbriana, sp. nov.—Frutex metralis omnino glaber, ramulis gracilibus rigidis teretibus vel in sicco subcompressis olivaceis, internodiis elongatis; stipulae persistentes in vaginam truncatam brevissimam connatae, vagina in lacinias subulatas 4 erectas rigidas 4–5 mm. longas desinente; folia mediocria opposita breviter petiolata in sicco luteovirentia papyracea, petiolo 3–6 mm. longo; lamina lanceolato-oblonga vel ovato-oblonga 9–11.5 cm. longa 3.5–5 cm. lata longiacuminata basi acuta vel subobtusa sublucida, costa venisque supra prominentibus, costa gracili subtus elevata, nervis lateralibus utroque latere c. 13 gracillimis prominentibus angulo lato saepe fere recto adscendentibus arcuatis juxta marginem conjunctis nervulis paucis prominulis laxe reticulatis; inflorescentiae terminales capitatae involucratae c. 2 cm. longe pedunculatae erectae, floribus sessilibus numerosis; bracteae 4 exteriores rubroviolaceae ovatae vel late ovatae inaequales 1.5–2.5 cm. longae usque ad 1.5 cm. latae conspicue palmatinerviae acutae vel acuminatae basi plus minusve cordatae distinctae, bracteis interioribus conformibus vel paullo angustioribus brevioribus; hypanthium obovoideum 1.5 mm. longum, calyce campanulato vix 1 mm. longo subintegro vel undulato; corolla alba c. 2 cm. longa, tubo supra sensim dilatato fauce 3–4 mm. lato, lobis triangulari-ovatis 4–5 mm. longis acutiusculis glabris; antherae inclusae.—Colombia: Umbría, Comisaría del Putumayo, alt. 325 meters, in forest, October–November, 1930, *G. Klug 1718* (herb. Field Mus. No. 641,394, type).

Apparently a handsome plant, not closely like any species of *Cephaelis* known from Colombia, nor very near those known from Peru. It somewhat resembles *C. setifera* Standl., which has much smaller flower heads and bracts.

Cephaelis Williamsii Standl. Field Mus. Bot. 8: 185. 1930.

Known heretofore only from the Department of Loreto, Peru, this species, according to material recently collected, extends also to Colombia. Colombia: Umbría, Comisaría del Putumayo, 325 meters, in forest, *Klug 1769, 1671.* A shrub or small tree 2–4 meters high; corolla cream-colored.

Chimarrhis cymosa Jacq. var. **jamaicensis** (Urban), comb. nov. *C. cymosa* Jacq. subsp. *jamaicensis* Urban, Symb. Antill. 1: 411. 1899.

Chimarrhis cymosa Jacq. var. **microcarpa** (Urban), comb. nov. *C. cymosa* Jacq. subsp. *microcarpa* Urban, Symb. Antill. 1: 411. 1899.

Chiococca pubescens Standl. Contr. U. S. Nat. Herb. 20: 209. 1919.

Of this comparatively rare species it is worth while to report a recent collection: Mexico: Vicinity of El Milagro, Sierra de San Carlos, Tamaulipas, August, 1930, *H. H. Bartlett 11178.*

Chiococca pachyphylla Wernham, Journ. Bot. 51: 323. 1913.

This species likewise is a rare one that seldom is collected.

Mexico: Cerro de los Armadillos, Sierra de San Carlos, Tamaulipas, on limestone, July, 1930, *Bartlett 10179*. La Tamaulipeca, Sierra de San Carlos, on limestone ledges, July, 1930, *Bartlett 10609*.

Chione venosa (Sw.) Urban, Symb. Antill. 4: 594. 1911. *Jacquinia venosa* Sw. Prodr. 47. 1788.

Williams and Cheesman in the *Flora of Trinidad and Tobago* have overlooked the genus *Chione*, which is represented in Tobago by the species cited above. The following specimens are in the herbarium of Field Museum:

Tobago: The Widow, in flower, August, 1910, *Broadway 3975;* a tree; flowers white and yellow, fragrant; in fruit, September, 1910, *Broadway 4389*.

Coccocypselum Condalia Pers. Syn. Pl. 1: 132. 1805.

Paraguay: In viciniis Caaguazú, in 1905, *E. Hassler 9036* (herb. Berol.). In regione fluminis Alto Paraná, 1909–1910, *K. Fiebrig 6342* (herb. Berol.).

Coccocypselum cordatum Krause, Anex. Mem. Inst. Butantan 1, pt. 3: 13. 1922.

The species was based on *Hoehne 753* from Estação Biológico, Alto da Serra, São Paulo. A photograph and fragment of the type (ex herb. Berol.) are in the herbarium of Field Museum. The following collections appear to represent the same well-marked species: Brazil: Santa Catharina, *Pabst 876* (herb. Berol.). Without locality, *Burchell 3162* (herb. Kew.).

Coccocypselum Gardneri, sp. nov.—Caules graciles teretes glabri vel pilis longis perpaucis induti, internodiis foliis plerumque longioribus; stipulae erectae lineari-subulatae 5 mm. longae glabratae; folia herbacea petiolata opposita, petiolo gracili 4–9 mm. longo sparse setoso-hirsuto; lamina lanceolato-oblonga vel rarius ovata 3.5–5.5 cm. longa 1.5–2.3 cm. lata acuta basi obtusa, supra in sicco fusca glabra, costa venisque non elevatis, subtus fusco-purpurascens, costa venisque ut quoque ad marginem pilis longis patentibus rigidibus setuloso-hirsuta, costa gracili elevata, nervis lateralibus utroque latere c. 6 tenerrimis obliquis angulo acuto adscendentibus leviter arcuatis marginem fere attingentibus, nervulis obscuris vel obsoletis; inflorescentia terminalis capitata graciliter 1.5 cm. longe pedunculata, pedunculo parce hirsuto, capitulo densissime multiflora 1 cm. lato, bracteis numerosis linearibus hirsuto-ciliatis calycem aequantibus; calyx 4-partitus, laciniis linearibus 4–5 mm. longis erectis hirsuto-ciliatis; corolla extus sparse hirsuta, tubo crasso 4 mm. longo, lobis subaequilongis oblongis acutiusculis intus glabris.—Brazil: Prov. Minas Geraes, in 1841, *Gardner 4731* (herb. Kew., type).

The species is known from a single specimen, but this shows such definitely marked characters that it seems safe to name it. *Coccocypselum Gardneri* is related to *C. Condalia* Pers., but it differs from all forms of that species in its distinctive pubescence, consisting of sparse, stiff, long, spreading hairs.

Coccocypselum guianense (Aubl.) Schum. in Mart. Fl. Bras. 6, pt. 6: 315. 1889. *Tontanea guianensis* Aubl. Pl. Guian. 108. 1775.

Paraguay: Berges ombragées des rivières á l'est de Caaguazú, November, 1874, *Balansa 1741* (herb. Kew.); stems prostrate and rooting; flowers blue; berries blue.

Coccocypselum Lyman-Smithii Standl. Field Mus. Bot. 8: 165. 1930.

Brazil: Prov. Minas Geraes, 1816–21, *Saint-Hilaire D.537* (herb. Paris). Province of Rio de Janeiro, *Glaziou 8732* (herb. Kew.). Itatiaya, Serra da Mantiqueira, under rocks, 2,300 meters, March, 1931, *R. W. Kaempfe 437* (herb. Berlin).

Coccocypselum sessiliflorum, sp. nov.—Herba repens tenuis ad nodos radicans, caulibus gracillimis, novellis adpresso-pilosulis, internodiis valde elongatis; stipulae persistentes subulatae 2 mm. longae adpresso-pilosulae; folia parva longe petiolata opposita membranacea, petiolo gracillimo 1–2 cm. longo dense adpresso-pilosulo; lamina late rotundato-ovata vel subrotundata 1–2.3 cm. longa et aequilata apice late rotundata vel obtusa et interdum brevissime apiculata, basi truncata vel subcordata, supra in sicco fusca, sparse hispidula, subtus vix pallidior, tantum ad venas adpresso-pilosula, inter nervos pallide minute lineolata, costa gracili prominente, nervis lateralibus utroque latere c. 5, inferioribus approximatis, superioribus magis remotis, angulo lato adscendentibus arcuatis; flores in axillis sessiles pauci; calyx 4-partitus, laciniis linearibus 2.5–3 mm. longis hypanthio plus quam duplo longioribus adpresso-ciliatis; corolla extus glabra 4 mm. longa, tubo crassiusculo supra paullo dilatato, lobis oblongis tubo bene brevioribus; bacca globosa 4–5 mm. diam. glabra calyce persistente coronata; semina pauca plano-convexa nigra 1 mm. diam.—Brazil: Without definite locality, *Burchell 2516* (herb. Kew., type). Near Rio de Janeiro, *Gaudichaud* (herb. Kew.). Prov. Rio de Janeiro, 1841, *Miers 2852* (herb. Kew.).

This well-marked species, represented by three collections of distinct origin, is related to *Coccocypselum herbaceum* Lam., of the Greater Antilles and Central America. The latter is a larger plant whose relatively narrower leaves are mostly acute at the base.

Corynula pilosa (Benth.) Hook. f. in Hook. Icon. 12: 22. *pl. 1123.* 1876. *Mitchella pilosa* Benth. Pl. Hartw. 194. 1845.

This plant, which in general appearance resembles closely *Nertera depressa,* a common species of the mountains of tropical

America, was described from the high mountains of Ecuador, and has been discovered lately in the mountains of Bolivia. It has not been recorded from Peru, but the following collection proves its occurrence there: Río Mixiollo, Libertad, *Weberbauer 7028* (herb. Field Mus., a fragment received from herb. Berol.).

Coussarea auriculata Standl. Field Mus. Bot. 4: 330. 1929.

The type of this species, which is easily recognized by its sessile leaves with narrowly auriculate bases, was collected at the mouth of the Río Santiago in eastern Peru, and until recently no other collection of the plant except the original one has been known. The species may be reported now for another country:

Bolivia: Bellavista, Mapiri region, 800 meters, April, 1927, *Otto Buchtien 1731* (U. S. Nat. Herb.).

Coussarea chariantha, sp. nov.—Frutex 2–2.5 m. altus, trunco 10–15 cm. diam., ramulis viridibus glabris; stipulae lineari-subulatae 6–8 mm. longae; folia breviter petiolata magna crasse papyracea, petiolo crassiusculo c. 2 cm. longo; lamina late elliptica 14–20 cm. longa 7.5–12.5 cm. lata apice subrotundata et abrupte breviter cuspidato-acuminata acumine 1.1–1.5 cm. longo, basi late rotundata vel interdum subacuta, glabra, costa supra subimpressa vel plana, subtus in sicco viridis, costa crassa elevata, nervis lateralibus utroque latere c. 12 angulo saepe fere recto divergentibus subarcuatis gracilibus elevatis juxta marginem conjunctis, nervulis prominulis laxe reticulatis; inflorescentia terminalis longipedunculata laxe corymboso-paniculata multiflora 9 cm. longa et aequilata, ramis gracilibus adscendentibus sparsissime strigillosis vel fere glabris, floribus graciliter 2–4 mm. longe pedicellatis; hypanthium glabrum vel glabratum 1.5 mm. longum basi acutum obovoideum, calyce 1.5 mm. longo subtruncato remote brevissime inaequaliter dentato glabro; corolla alba aperta non visa in alabastro linearioblonga 6–7 mm. longa apice obtusa glabra vel sparsissime minute sericea, lobis tubo longioribus.—Colombia: El Humbo, Department of Boyaca, alt. 750 meters, in dense forest, November 11, 1932, *A. E. Lawrance 575* (herb. Field Mus. No. 708,644, type).

Coussarea contracta (Walp.) Muell. Arg. Flora 58: 467. 1875. *Faramea contracta* Walp. Nov. Act. Nat. Cur. 19: Suppl. 1: 351. 1843. *F. Fiebrigii* Krause, Bot. Jahrb. 40: 347. 1908.

Brazil: Vallinhos, Paraná, in silva primaeva, November, 1910, *Dusén 10783*. Without locality, *Sello 1788*.—Paraguay: Grande forêt de Caaguazú, November, 1874, *Balansa 1749* (herb. Kew.); shrub 3–4 meters high; flowers white, fragrant. Plaine de Pirayu-bi entre Paraguari et Ibitimi, dans le bois, February, 1876, *Balansa 1749a* (K); shrub 3–4 meters high; fruit white. Sierra de Amambay, *Hassler 11391* (K, herb. Berol., Paris). In regione fluminis Alto Paraná, *Fiebrig 6130* (K). Central Paraguay, *Hassler 3505*. Cordillera de Altos, *Fiebrig 217a* (type collection of *Faramea Fiebrigii*).

Coussarea Hoehnei (Krause), comb. nov. *Faramea Hoehnei* Krause, Anex. Mem. Inst. Butantan 1, fasc. 3: 25. *pl. 5.* 1922.

Coussarea hyacinthiflora, sp. nov.—Omnino glabra; ramuli crassiusculi pallide ochracei subteretes, internodiis brevibus; stipulae subpersistentes crassae pallide virides 3–4 mm. longae rotundato-ovatae obtusae; folia breviter petiolata opposita membranacea, petiolo crassiusculo 6–10 mm. longo; lamina elliptica vel late elliptica 11–12.5 cm. longa 5–7 cm. lata abrupte caudato-acuminata, acumine e basi triangulari lineari-attenuato 1–1.5 cm. longo, basi acuta, supra in sicco cinereo-viridis, costa venisque pallidis vix elevatis, subtus fere concolor, in axillis nervorum foveolata, costa gracili pallida elevata, nervis lateralibus utroque latere c. 5 gracilibus prominentibus angulo latiusculo adscendentibus obliquis arcuatis prope marginem conjunctis, nervulis prominulis pallidis laxe reticulatis; inflorescentia terminalis parva sessilis thyrsoideo-paniculata dense pauciflora 3–4 cm. lata (perfecta non visa) basi trichotoma, floribus ad apices ramorum dense subumbellatis, pedicellis crassis c. 1 mm. longis, bracteis obsoletis; hypanthium obovoideo-columnare 1–1.2 mm. longum, calyce campanulato subtruncato 2–2.5 mm. longo et fere aequilato; corolla in alabastro subcurva apicem versus paullo angustata, tubo crasso 5–6 mm. longo supra dilatato, lobis 4 anguste triangulari-oblongis versus apicem acutiusculum paullo attenuatis patentibus vel subrecurvis intus glabris; antherae ut stylus inclusae.—Brazil: Pão Brazil, Rio Branco, State of Amazonas, April, 1913, *J. G. Kuhlmann 3401* (herb. Berol., type).

A relative of *Coussarea violacea* Aubl., of the Guianas and of the Rio Negro, that species differing in its pedunculate inflorescence and smaller corollas.

Coussarea japurana, sp. nov.—Praeter flores omnino glabra, ramulis novellis subteretibus fuscis; stipulae deciduae in vaginam connatae, perfectae non visae; folia magna petiolata firme membranacea, petiolo gracili 2.5–3.5 cm. longo; lamina ovata 14–23 cm. longa 8–12.5 cm. lata longe sensim acuminata, basi truncata vel late rotundata in sicco fusco-olivacea fere concolor, costa gracili subtus elevata, nervis lateralibus utroque latere c. 10 gracilibus valde arcuatis, infimis angulo recto abeuntibus, nervulis prominulis laxe reticulatis; inflorescentia terminalis erecta 2 cm. longe pedunculata cymoso-paniculata 4 cm. longa 5 cm. lata, ramis primariis basi nudis arcuato-adscendentibus, floribus ad apices ramorum primariorum dense cymoso-congestis sessilibus vel breviter crasse pedicellatis, odoratissimis; hypanthium anguste obovoideum glabrum 1.5 mm. longum basi acutum, calyce tubuloso-campanulato 2 mm. longo truncato; corolla alba extus sparse minute puberula, tubo gracili 15–17 mm. longo fauce paullo dilatato, lobis lineari-lanceolatis 8–9 mm. longis apicem versus angustatis obtusis.—Brazil: Jubará, Rio Japurá infer., civ. Amazonas, September 17, 1904, *A. Ducke 22987* (herb. Berol., type).

Distinctive in its very large, thin, long-acuminate leaves.

Coussarea liliiflora, sp. nov.—Arbor ut videtur dense ramosa omnino glabra, ramulis vetustioribus teretibus crassis fusco-ochraceis, novellis gracilibus pallide olivaceis, internodiis brevibus; stipulae persistentes pallidae e basi late rotundato-triangulari abrupte breviterque subulato-mucronatae 1.5–2 mm. longae erectae; folia longiuscule petiolata membranacea opposita, petiolo gracili 7–12 mm. longo; lamina ovato-oblonga vel elliptico-oblonga, rarius elliptica, 4–7 cm. longa, 2–3 cm. lata, abrupte caudato-acuminata, acumine e basi anguste triangulari lineari-attenuato obtuso, prope basin abrupte contracta et longe decurrens, supra in sicco fusco-viridis, sparse minute puncticulata, costa prominente, venis vix elevatis, subtus pallidior, costa gracili prominente, nervis lateralibus utroque latere c. 6 gracillimis prominentibus angulo lato adscendentibus irregularibus subcurvis vel fere rectis remote a margine conjunctis, nervulis prominulis laxe reticulatis; flores terminales solitarii vel ternati subsessiles vel usque ad 4 mm. longe pedicellatis, pedicellis supra clavato-incrassatis; hypanthium obovoideum 2–3 mm. longum, calyce late campanulato 2.5–3 mm. longo truncato et remote dentato, dentibus suberectis subulatis vel anguste triangularibus; corolla in alabastro anguste linearis versus apicem longe attenuata, tubo gracili 2 cm. longo 2 mm. lato supra non dilatato, lobis 4 linearibus longe anguste attenuatis c. 3.5 cm. longis 2 mm. latis intus glabris patentibus albis; antherae ut stylus inclusae.—Peru: Mouth of the Río Santiago, on the Río Marañón, in upland forest, alt. 160 meters, November 22, 1924, *G. Tessmann 4621* (herb. Berol., type).

This *Coussarea* is quite unlike any other known from the upper Amazon, or elsewhere, so far as I know, being especially noteworthy for the few flowers and for the long, slender corolla with exaggerated linear lobes.

Coussarea macrantha, sp. nov.—Frutex metralis, ramulis gracilibus nigris glabris subteretibus; stipulae deciduae 4–5 mm. longae semirotundatae breviter cuspidato-apiculatae; folia opposita breviter petiolata magna crasse membranacea in sicco fusca, petiolo gracili 1.5–2 cm. longo glabro; lamina late elliptica vel oblongo-elliptica 17–24 cm. longa 8–13 cm. lata plus minusve inaequilatera abrupte anguste attenuato-acuminata basi rotundata vel acuta, glabra, supra sublucida, costa nervisque prominentibus, nervulis prominulis reticulatis, subtus concolor, costa gracili elevata, nervis lateralibus utroque latere c. 12 gracillimis prominentibus angulo semirecto vel latiore adscendentibus leviter arcuatis vel fere rectis, nervulis prominulis arcte reticulatis; inflorescentia terminalis crasse 2.5 cm. longe pedunculata cymoso-corymosa basi trichotoma corollis inclusis circa 10 cm. longa et paullo latior basi trichotoma, e cymis paucis umbelliformibus paucifloris composita, ramis crassis valde adscendentibus sparse minute puberulis, bracteis obsoletis, floribus brevissime crasse pedicellatis; hypanthium obconicum 2–2.5 mm. longum dense ochraceo-sericeum; calyx campanulatus 4 mm. longus

remote brevissime denticulatus sparse sericeus et praesertim supra hispidulus; corolla alba extus densiuscule et minutissime puberula, tubo gracili 3–3.5 cm. longo supra vix dilatato fauce 3–4 mm. lato, lobis 4 lineari-lanceolatis patentibus 2–3 cm. longis 5 mm. latis attenuatis acutiusculis intus glabris vel minutissime puberulis; antherae inclusae; stylus gracillimus 3.5 cm. longus minute puberulus. —Peru: Dept. Loreto, Florida, Río Putumayo, at mouth of Río Zubineta, alt. 200 meters, in forest, March–April, 1931, *G. Klug 2070* (herb. Field Mus. No. 641,370, type).

The relationship of this rather well-marked species is evidently with *Coussarea hirticalyx* Standl., also a native of Loreto. The latter, however, has conspicuously smaller flowers, the corolla tube being only 2 cm. long, and the lobes 5–6 mm. long.

Coussarea macrocalyx, sp. nov.—Frutex 2.5–3-metralis, trunco 2.5–7 cm. diam., ramulis crassis ochraceis glabris; stipulae (perfectae non visae) 5 mm. longae et ultra late ovatae; folia magna petiolata firme pergamentacea opposita, petiolo crassiusculo 1–2.5 cm. longo; lamina oblonga vel ovalis 12–17 cm. longa 5–10 cm. lata breviter anguste acuminata, basi late rotundata usque ad acuta, glabra in sicco griseo-viridis, costa venisque supra prominulis, subtus concolor, costa elevata, nervis lateralibus utroque latere c. 11 prominentibus gracilibus angulo fere recto divergentibus versus marginem arcuato-conjunctis, nervulis prominentibus arcte reticulatis; inflorescentia terminalis cymoso-paniculata sessilis ut videtur pauciflora laxa, floribus aggregatis sessilibus, ramis glabris; fructus globoso-ovalis c. 1.5 cm. longus et 1 cm. latus basi et apice rotundatus calyce persistente coronatus; calycis (perfecti non visi) tubus angustus 10–12 mm. longus 4–5 mm. latus.—Colombia: El Humbo, Department of Boyaca, alt. 900 meters, in forest along stream, September 19, 1932, *A. E. Lawrance 445* (herb. Field Mus. No. 708,574, type).

The collector states that the fruits are yellow. The material is incomplete, and far from being satisfactory for diagnosis. It is evident, however, that the species represented is unlike any other known from Colombia or adjacent regions, particularly in the greatly elongated calyx tube.

Coussarea megistophylla, sp. nov.—Praeter inflorescentiam glabra; ramuli crassi straminei ut videtur tetragoni, internodiis brevibus; stipulae subpersistentes triangulari-oblongae 9 mm. longae attenuato-acutae crassae; folia maxima brevissime petiolata quaternata membranacea, petiolo crasso c. 8 mm. longo; lamina anguste oblanceolato-oblonga c. 38 cm. longa et 10–12 cm. lata abrupte vel sensim acuminata basin versus longe sensim attenuata, basi ipsa acutiuscula, supra in sicco pallide flavescenti-viridis, costa venisque vix elevatis, subtus fere concolor, costa gracili elevata, nervis lateralibus utroque latere c. 16 obliquis angulo semirecto adscendentibus gracilibus prominentibus prope marginem conjunctis, nervulis pro-

minulis laxe reticulatis; inflorescentiae axillares solitariae graciliter 7–12 cm. longe pedunculatae thyrsoideo-paniculatae laxe multiflorae 6–8 cm. longae et 3–8 cm. latae, ramis gracilibus verticillatis adscendentibus sparse minute puberulis, bracteis minutis vel obsoletis, floribus numerosis subumbellatis congestis sessilibus vel brevissime pedicellatis; hypanthium obovoideum 1–1.5 mm. longum minutissime sparseque puberulum, calyce campanulato 2.5 mm. longo sparse minute puberulo truncato et obsolete denticulato; corolla extus pruinoso-puberula in alabastro apicem versus attenuata et 4-angulata, tubo 5–6 mm. longo supra vix dilatato, lobis 4 linearibus attenuatis obtusis 8 mm. longis patentibus intus pruinoso-puberulis; antherae semiexsertae lineares obtusae 3–4 mm. longae.—Brazil: Province of Minas Geraes, 1816–21, *Auguste de Saint-Hilaire* (herb. Paris, type).

The plant is altogether different from any other species of the genus, being unique in its large, narrow, elongate, and nearly sessile leaves. It is unusual, also, in having verticillate leaves and axillary inflorescences.

Coussarea Mutisii, sp. nov.—Ramuli vetustiores ochracei rimosi glabrati, novellis gracilibus sparse patenti-pilosis, internodiis elongatis; stipulae persistentes c. 6 mm. longae breviter pilosae apice rotundatae; folia mediocria breviter petiolata membranacea, petiolo gracili 2 cm. longo piloso; lamina oblonga vel elliptico-oblonga 14–18 cm. longa 6.5–8 cm. lata abrupte acuminata, acumine angusto sensim attenuato 1.5–2 cm. longo, basi acuta et inaequalis, supra in sicco opaca tantum ad nervos puberula, subtus concolor praesertim ad costam nervosque breviter patenti-pilosa, costa gracili prominente, nervis lateralibus utroque latere c. 11 tenerrimis obliquis angulo latiusculo adscendentibus subarcuatis prope marginem junctis, venulis prominulis laxe reticulatis; inflorescentia terminalis 3 cm. longe pedunculata erecta basi trichotoma, ramis simplicibus dense fulvo-hirsutis 1–1.8 cm. longis crassis, floribus ad apicem rami dense capitato-congestis, capitulis pauci- vel multifloris, bracteis patentibus triangulari-ovatis 3 mm. longis hirtellis acutiusculis, floribus arcte sessilibus; hypanthium obovoideum 2.5 mm. longum dense patenti-pilosulum; calyx angustus 6–7 mm. longus dense patenti-pilosus ad medium vel profundius lobatus, laciniis suberectis anguste lanceolato-oblongis attenuato-acutis; corolla in alabastro linearis fere 3 cm. longa extus breviter pilosula apice angusto obtusa, lobis linearibus tubo plus quam duplo longioribus.—Colombia: Without locality, *José Celestino Mutis 3606* (U. S. Nat. Herb. No. 1,560,361, type).

Among the Colombian species of the genus this is distinguished by the abundant spreading pubescence of the inflorescence.

Coussarea obliqua, sp. nov.—Arbor 5-metralis, ramulis crassiusculis subteretibus glabris; stipulae crassae late rotundato-ovatae 6–7 mm. longae acutae glabrae erectae; folia opposita petiolata

subcoriacea, petiolo crasso 2.5 cm. longo obscure puberulo vel fere glabro; lamina oblonga vel elliptico-oblonga c. 20 cm. longa et 8.5–9 cm. lata abrupte cuspidato-acuminata basi acuta et obliqua in sicco fusca, supra glabra lucida, costa prominula, nervulis prominulis arcte reticulatis, subtus fere concolor ubique minute adpresso-pilosula, costa crassa elevata, nervis lateralibus utroque latere c. 8 validis prominentibus angulo latiusculo adscendentibus arcuatis pallidis, nervulis vix prominulis laxe reticulatis; inflorescentia terminalis c. 7 mm. longe pedunculata cymosa c. 9 cm. lata et aequilonga e capitulis paucis longe pedunculatis dense multifloris composita, floribus sessilibus, bracteis obsoletis vel deciduis; hypanthium obovoideum minutissime puberulum vel glabratum 1.5 mm. longum; calyx late campanulatus c. 2 mm. longus breviter rotundato-lobatus vel undulatus; corolla ochroleuca glabra in alabastro angulata, tubo gracili 2.5 cm. longo 1.5 mm. crasso supra vix vel non dilatato, lobis adscendentibus oblongo-linearibus acutiusculis 10–12 mm. longis.—Peru: Dept. Loreto, Florida, Río Putumayo, at mouth of Río Zubineta, alt. 200 meters, in forest, March–April, 1931, *G. Klug 1987* (herb. Field Mus. No. 641,386, type).

The species is noteworthy for the abundant pubescence of the lower leaf surface, consisting of very minute and appressed hairs. The dried leaves, on this account, are soft to the touch.

Coussarea penetantha, sp. nov.—Glabra; ramuli crassi compressi pallide ochracei ad nodos paullo incrassati, internodiis brevibus vel elongatis; stipulae subpersistentes 7 mm. longae late ovatae obtusae vel acutae crassae granulosae pallidae erectae connatae; folia breviter petiolata opposita crasse chartacea, petiolo crasso 6–8 mm. longo supra late sulcato; lamina obovato-elliptica vel elliptica, rare lanceolato-oblonga, 12–19 cm. longa, 5–8.5 cm. lata, abrupte cuspidato-acuminata, acumine e basi triangulari longe lineari-attenuato 1–1.5 cm. longo, saepissime supra basin paullo latissima, basi cuneato-acuta, supra in sicco cinereo-viridis, costa venisque prominentibus, subtus vix pallidior, costa gracili elevata, nervis lateralibus utroque latere c. 11 gracilibus prominentibus obliquis angulo circa semirecto adscendentibus valde arcuatis juxta marginem conjunctis, nervulis prominulis laxe reticulatis; inflorescentia terminalis crasse 1 cm. longe pedunculata racemiformis corollis exclusis 1–1.5 cm. longa dense pauciflora, pedicellis crassis 1–2.5 mm. longis; hypanthium turbinatum 1.5–2 mm. longum; calyx late campanulatus truncatus 2.5–3 mm. longus 4 mm. latus; cetera ignota.—Colombia: Province of Barbacoas, alt. 600 meters, 1851–57, *J. Triana 1714* (herb. Kew., type; duplicate in herb. Paris); May, 1853, *Triana 3147* (*41*) (P).

Vernacular name, "flor de muerto."

Coussarea penetantha resembles closely *C. grandifolia* Rusby in leaf form, but the latter is distinguished at a glance by its large, many-flowered inflorescence.

Declieuxia hedeomoides, sp. nov.—Herba vel suffrutex perennis, caulibus simplicibus c. 20 cm. altis crassis sparsiuscule pilis brevibus mollibus pubescentibus, internodiis 1.5–3 cm. longis; folia 4–5-verticillata linearia vel anguste lanceolato-linearia 13–22 mm. longa 2–3 mm. lata longe attenuata basin sessilem versus paullo attenuata rigida subpatentia vel late adscendentia glabra vel glabrata supra viridia subtus brunnescentia triplinervia, costa subtus valde elevata versus apicem venas 1–2 emittente, marginibus plus minusve revolutis; flores dense cymosi rubri, cymis parvis paucifloris in axillis superioribus insertis foliis brevioribus, floribus sessilibus congestis; hypanthium didymum glabrum, sepalis erectis lineari-subulatis vix 0.5 mm. longis; bracteae breves foliaceae lineares; corolla extus glabra in alabastro obtusa, c. 12 mm. longa, tubo gracillimo versus faucem abrupte dilatato, lobis suberectis 2.5 mm. longis ovatis obtusis.—Brazil: Corrego dos Moreiras, Matto Grosso, "arbusto do campo seco," September, 1914, *J. G. Kuhlmann* (Commissão Rondon) *1536* (Herb. Inst. Biol. S. Paulo, type; fragment in herb. Field Mus.).

The available material is rather scant, but sufficient to show the principal characters of the plant. This differs from other species of *Declieuxia* in its narrow verticillate leaves and its axillary inflorescence.

Deppea (?) colombiana, sp. nov.—Ramuli crassi subteretes glabri; stipulae persistentes virides ad basin in lacinias numerosas subulatas 7–10 mm. longas puberulas vel glabratas partitae; folia magna longipetiolata membranacea opposita, petiolo gracili 4–5 cm. longo supra profunde sulcato; lamina obovata vel oblongo-obovata c. 23 cm. longa et 10.5 cm. lata apice obtusa vel subrotundata et abrupte breviter acuminata, acumine triangulari attenuato 1 cm. longo, versus basin plus minusve contracta et ad petiolum longe cuneato-attenuata, supra in sicco fusco-viridis opaca glabra costa nervisque non elevatis, subtus paullo pallidior microscopice puberula vel glabra, costa crassiuscula elevata, nervis lateralibus utroque latere c. 13 obliquis angulo semirecto adscendentibus gracillimis prominulis leviter arcuatis juxta marginem conjunctis, venulis vix prominulis laxe reticulatis; inflorescentia axillaris cymosa dense multiflora 2 cm. longe pedunculata recurva 4 cm. lata, floribus arcte sessilibus congesto-cymosis; capsula obovoidea 4–5 mm. longa minutissime puberula vel glabrata fere laevis, seminibus numerosissimis minutis ferrugineis obtusangulis minute foveolatis; sepala persistentia plus minusve foliacea oblanceolata vel lineari-oblanceolata 10–12 mm. longa acuta vel acuminata subpatentia venosa minute puberula vel glabrata.—Colombia: Andes de Antioquia, in 1852, *J. Triana* (herb. Paris, type).

This plant, which I name here with much reluctance, evidently is closely related to *Deppea (?) venezuelensis* Standl. (Field Mus. Bot. 8: 52. 1930). The generic position of both these plants is annoy-

ingly uncertain, but probably both belong to a distinct genus that must receive a name when flowering material of one or the other has become accessible. If the fruit were not clearly capsular, the plants might be placed near *Sabicea*, or even in the genus *Amphidasya*, but from the material examined I can not believe that it is at all fleshy. *Deppea venezuelensis* and *D. colombiana* are much alike in most respects, but in *D. venezuelensis* the stipules are entire, and not at all laciniate as in the Colombian plant here described.

Diodia cymosa Cham. Linnaea 9: 217. 1834.

The specimen cited below illustrates an unexpected extension of range, for the species has been known previously only from southern Brazil.

Colombia: Medellín, Tranvía del Oriente, Dept. Antioquia, 1,500 meters, January, 1931, *W. A. Archer 1605;* corolla white, pink-tipped at first.

Dolichodelphys chlorocrater Schum. & Krause, Verh. Bot. Ver. Brandenb. 50: 102. *fig.* 1908.

Heretofore the genus and species have been known from a single collection, *Ule 6774* from the Department of Loreto, Peru. This is represented in the herbarium of Field Museum by a photograph and fragment of the type, from the Berlin herbarium. The Colombian collection cited below is exactly like the type in essential characters. It was taken from a tree 6 meters high with cream-colored flowers. The leaves are as much as 33 cm. long and 12 cm. wide.

It is exceedingly doubtful that the fruit of this plant is baccate, as originally described. The aspect of the inflorescence and foliage is suggestive rather of those Rubiaceae, such as the Cinchoneae, that have capsular fruit.

Colombia: Umbría, Comisaría del Putumayo, 325 meters, in forest, *Klug 1804*.

Duroia genipoides Spruce ex Hook. f. in B. & H. Gen. Pl. 2: 82. 1873, nomen; Schum. in Mart. Fl. Bras. 6, pt. 6: 364. 1889.

The species was based on *Spruce 3624*, collected on the Orinoco near Maipures, the specimens being in fruit only. A recent collection clearly represents the same species:

Venezuela: Amazonas Territory, Puerto Ayacucho, 100 meters, *Holt & Blake 809*.

This collection is in flower. The species is easily recognized by its curious calyx, 1 cm. long, which is truncate, and split to the base on one side. The corolla is densely sericeous outside, especially on the thick cylindric tube, and the triangular-oblong acuminate

spreading lobes are finely tomentulose within; the tube is almost 1 cm. long, and the lobes about 1.5 cm. in length.

Duroia Melinonii, sp. nov.—Praeter inflorescentiam omnino glabra, ramulis crassiusculis fusco-brunnescentibus teretibus, internodiis brevibus; stipulae paullo supra basin circumscissae caducae, non visae; folia mediocria petiolata firme membranacea, petiolo gracili 1.5–2 cm. longo; lamina oblanceolato-oblonga 15–18 cm. longa 4.5–6 cm. lata apice obtusa vel subrotundata et abrupte acuminata, acumine anguste triangulari longe acute attenuato 1–1.5 cm. longo, basin versus longe cuneatim attenuata, supra subopaca in sicco fusca costa nervisque vix prominentibus, subtus vix pallidior brunnescens, costa gracili elevata, nervis lateralibus utroque latere c. 12 gracillimis prominulis angulo circa semirecto adscendentibus ante marginem junctis, nervulis obscuris laxissime reticulatis, margine primo sparse adpresso-setoso-ciliato; inflorescentia mascula terminalis cymosa capituliformis dense multiflora erecta 1–2 cm. longe pedunculata, floribus arcte sessilibus; hypanthium in flore masculo fere obsoleto, calyce campanulato 4–5 mm. longo undulato extus sparse sericeo vel fere glabro intus dense sericeo; corolla extus praesertim ad tubum dense pilis nitentibus ochraceis strigoso-sericea in alabastro 12 mm. longa, tubo crasso 3 mm. lato, lobis oblique lanceolatis acuminatis tubo paullo longioribus.—French Guiana: In 1842, *Mélinon* (herb. Paris, type).

This shrub or tree evidently is an inhabitant of wet deep forest, for the branches and leaves are well covered with mosses and hepatics.

Elaeagia subspicata, sp. nov.—Ramuli subteretes rimosi ochracei, novellis dense minutissime puberulis; stipulae (perfectae non visae) ovatae 6 mm. longae et ultra deciduae acutiusculae dense sericeae; folia parva breviter petiolata subcoriacea in sicco fusca, petiolo crasso fere ad basin marginato 6–8 mm. longo glabro; lamina elliptica vel latissime elliptica 7–9.5 cm. longa 4.5–6.5 cm. lata apice obtusa et breviter obtuse triangulari-protracta, basi abrupte contracta et anguste decurrens, glabra, costa supra subimpressa, nervis non elevatis, subtus brunnescens, costa gracili elevata, nervis lateralibus utroque latere c. 5 prominentibus subcurvis angulo semirecto adscendentibus prope marginem junctis, venulis prominulis reticulatis; inflorescentia terminalis erecta 5 cm. longe pedunculata basi trichotoma, floribus sessilibus dense glomeratis, glomerulis spicatis, spicis densis vel interruptis paniculatis, paniculis circa 10 cm. longis et fere aequilatis, ramis dense puberulo-tomentosis, glomerulis pauci- vel multifloris, bracteis minutis, basilaribus interdum majoribus et foliaceis; capsula obovoideo-globosa 1.5–2 mm. longa dense minute puberula calyce persistente coronata; calyx 5-lobus, lobis late ovali-ovatis vix 0.5 mm. longis obtusis erectis; semina numerosa minuta brunnea angulata grosse foveolata.—Colombia: Without locality, *José Celestino Mutis 12* (U. S. Nat. Herb. No. 1,560,182, type; fragment in herb. Field Mus.).

In the absence of flowers the generic position of the plant is not altogether certain, but the characters agree well enough with those of *Elaeagia*. The disposition of the inflorescence is similar to that of the Bolivian *E. grandis* Rusby, which has large leaves, a short-pilose inflorescence, and narrow calyx lobes.

Faramea blechoides, sp. nov.—Omnino glabra, ramulis gracilibus teretibus fusco-olivaceis, novellis costa decurrente stipularum angulatis, internodiis elongatis; stipulae subpersistentes 1.5 mm. longae ovato-rotundatae subconnatae 2–3 mm. longe subulato-mucronatae; folia mediocria vel minora breviter petiolata firme membranacea, petiolo gracili 3–5 mm. longo; lamina elliptico-oblonga vel lanceolato-oblonga 8–12 cm. longa 2.5–4 cm. lata longe acuminata, acumine angusto attenuato obtuso, basi acuta vel anguste acuta, supra in sicco fusco-viridis lucida, costa elevata, venis prominulis eleganter reticulatis, subtus fere concolor opaca, costa gracili elevata, nervis lateralibus utroque latere c. 10 gracillimis prominentibus angulo fere recto divergentibus remote a margine conjunctis arcuatis, venulis prominulis arcte reticulatis; inflorescentia terminalis triradiata, radiis 3–5 mm. longis apice paucifloris, floribus sessilibus bracteis 2 foliaceis ovatis acuminatis basi late rotundatis vel truncatis 1–2 cm. longis viridibus involucratis; hypanthium angustum 1 mm. longum, calyce campanulato hypanthio multo latiore 1.5 mm. longo truncato remote subulato-denticulato; corolla extus glabra, tubo gracillimo 18 mm. longo supra paullo dilatato, lobis lineari-lanceolatis attenuatis patentibus 7–8 mm. longis.—Brazil: Goyaz, in 1843, *H. A. Weddell 2904* (herb. Paris, type).

A relative of *Faramea involucellata* Muell. Arg., which was described from the State of Rio de Janeiro.

Faramea capillipes Muell. Arg. Flora 58: 474. 1875.

This strongly marked species was described from Obidos in the Amazon Valley of Brazil, and it is now known to extend into Amazonian Peru. A substantial extension of its range northward is shown by the following recent collection:

Venezuela: Amazonas Territory, Cerro Yapacana, upper Río Orinoco, alt. 100 meters, April, 1931, *E. G. Holt & E. R. Blake 745.*

Faramea cardiophylla, sp. nov.—Omnino glabra, ramulis subteretibus fusco-olivaceis crassiusculis rigidis rectis, internodiis elongatis; stipulae diutius persistentes fere liberae rotundato-ovatae 5 mm. longae acutiusculae apice in aristam erectam 5 mm. longam abeuntes; folia opposita arcte sessilia et amplexicaulia, ovalia usque ad (superiora) oblonga vel ovato-ovalia, 6.5–9 cm. longa, 3–5.5 cm. lata, abrupte cuspidato-acuminata, acumine anguste triangulari attenuato acuto 5–7 mm. longo, basi late rotundata et profunde cordata, sinu usque ad 8 mm. longo, lobis late rotundatis,

lucida, crassiuscule coriacea, in sicco flavescens, costa venisque supra prominentibus, costa crassiuscula subtus prominente, nervis lateralibus utroque latere c. 14 prominentibus gracilibus angulo lato saepe recto divergentibus leviter arcuatis marginem pallidum anguste incrassatum fere attingentibus, nervulis vix prominulis laxe reticulatis; inflorescentia terminalis 8 mm. longe pedunculata depresso-cymosa 3.5 cm. lata dense multiflora basi 5-radiata, radiis adscendentibus bis trichotomis, ramis ultimis apice umbellatim trifloris, bracteis obsoletis, pedicellis crassiusculis 3–4 mm. longis; hypanthium turbinatum 1.2 mm. longum; calyx late campanulatus 1.3 mm. longus truncatus; corolla in alabastro crassa apice late obtusa, tubo crasso 5 mm. longo fere 2 mm. lato, lobis 4 oblongo-ovatis 3.5 mm. longis obtusis subpatentibus intus glabris; antherae semiexsertae; stylus fere 3 mm. longe exsertus.—Brazil: Province de Rio de Janeiro, 1816–21, *Auguste de Saint-Hilaire A.399* (herb. Paris, type).

The plant appears to be related to *Faramea Tamberlikiana* Muell. Arg., of which I have seen no material. That is described as having distinctly petiolate and less deeply cordate leaves and a 4-dentate calyx.

Faramea cestroides Standl. Field Mus. Bot. 7: 71. 1930.

Colombia: Prov. Pamplona, in forest, 2,100 meters, *Funck & Schlim 1413* (herb. Paris). Perico, Dept. Santander, 2,700 meters, in forest, *Kalbreyer 587* (herb. Berol.); a shrub 2.5 meters high; flowers very fragrant. Prov. Pamplona, 2,100 meters, in 1848, *L. Schlim 1737* (herb. Leningrad); flowers lilac, very fragrant.

Faramea cyanea Muell. Arg. Flora 58: 473. 1875.

Brazil: Serra do Mar, Porto da Cima, Paraná, 200 meters, in silva primaeva, *Jänssan 708a.* Porto da Cima, Paraná, *Dusén 10258* (herb. Stockholm), *11943* (S).—Paraguay: In regione fluminis Alto Paraná, *Fiebrig 5413* (herb. Kew.), *5843* (herb. Berol.). In viciniis Caaguazü, *Hassler 9410* (B).—Argentina: Puerto León, Misiones, 75–100 meters, *H. M. Curran 681* (U. S. Nat. Herb.).

Faramea exemplaris, sp. nov.—Arbuscula omnino glabra 4-metralis, trunco 6 cm. diam., ramulis gracilibus subflexuosis obtuse tetragonis fusco-ochraceis, internodiis elongatis; stipulae deciduae e basi late ovato-triangulari cuspidato-attenuatae; folia magna tenuiter coriacea breviter petiolata opposita, petiolo crasso 3–13 mm. longo; lamina oblonga vel rarius anguste lanceolato-oblonga 20–26 cm. longa 5.5–8.5 cm. lata subabrupte longe caudato-acuminata, acumine e basi anguste triangulari longe lineari-producto, basi rotundata vel obtusa, rarius acutiuscula, valde bullata, in sicco fusco-viridis, supra sublucida, costa prominente, venis valde impressis, subtus opaca, fusco-brunnescens, costa crassiuscula valde elevata, nervis lateralibus utroque latere c. 24, aliis parallelis et fere aequaliter prominentibus interjectis, valde elevatis gracilibus,

angulo recto divergentibus, rectis, in nervum regularem submarginalem conjunctis, nervo submarginali valde elevato et costae fere aequali, margine valde revoluto, nervulis paucis prominulis laxe reticulatis; inflorescentia terminalis magna laxa multiflora cymoso-paniculata c. 11 cm. longa et aequilata c. 5 cm. longe graciliter pedunculata erecta interdum basi foliaceo-bracteata repetite trichotoma, ramis gracilibus fuscis rectis vel paullo flexuosis, bracteis plerumque minutis vel deciduis, floribus plerumque in cymulas 2–3-floras dispositis, interdum umbellatis, pedicellis gracilibus rectis 2–3 mm. longis; hypanthium obovoideo-ellipsoideum 1 mm. longum; calyx latissime campanulatus c. 1 mm. latus et 0.5–0.8 mm. longus ad medium vel paullo profundius dentatus, dentibus remotis triangularibus acutis, margine truncato separatis, inaequalibus, dentibus minutis interdum interjectis; corolla in alabastro 12–13 mm. longa anguste linearis subangulata longe attenuata, lobis linearibus attenuatis tubo fere duplo longioribus, apicibus loborum in alabastro breviter liberis, tubo gracili viridi, lobis luteis.—Peru: Mouth of the Río Santiago, upper Río Marañón, alt. 160 meters, in upland forest, November 17, 1924, *G. Tessmann 4562* (herb. Berol., type).

The free tips of the corolla lobes are unusual or perhaps unique in the genus *Faramea*, to which, however, the present plant seems to belong with scarcely any doubt. In that genus it is one of the most distinct species known, because of the form and appearance of its leaves. These are extraordinarily regular in outline, being almost perfectly oblong. They are noteworthy for their bullate surface, the numerous lateral veins, and the distinct submarginal vein. The leaves bear a certain resemblance to those of the Peruvian *F. miconioides* Standl., but the flower characters of the two species are altogether distinct.

Faramea fragrans, sp. nov.—Frutex vel arbuscula 1–6-metralis omnino glabra, ramis gracilibus rigidis olivaceis in sicco plus minusve compressis et striatis, internodiis elongatis; stipulae cito deciduae basi breviter connatae 1.5–2 cm. longae et ultra sensim longissime attenuatae angustissimae; folia magna breviter petiolata subcoriacea in sicco luteoviridia, petiolo crassiusculo c. 8 mm. longo; lamina elliptico-oblonga, subovalis vel obovato-ovalis 13–20 cm. longa 6–9 cm. lata apice obtusa vel acutiuscula et abrupte caudata, acumine lineari subobtuso 12–18 mm. longo basi paullo latiore, basi acuta vel subobtusa, supra sublucida venis prominulis, subtus paullo pallidior, costa crassa elevata, nervis lateralibus utroque latere c. 15 gracilibus prominentibus angulo fere recto divergentibus leviter curvis prope marginem in nervum collectivum conspicuum conjunctis, nervulis prominentibus laxe reticulatis; inflorescentia terminalis cymoso-paniculata semiglobosa crasse 4 cm. longe pedunculata laxiuscule multiflora c. 8 cm. lata basi radiatim ramosa, radiis brevibus in sicco cyaneis gracilibus rectis rigidis, bracteis minutissimis vel deciduis, floribus umbellatis, umbellis paucifloris, pedicellis c. 1

cm. longis; hypanthium turbinato-oblongum 1.5–2 mm. longum; calyx fere ad basin partitus, lobis filiformi-subulatis adscendentibus 2.5–3 mm. longis persistentibus; corolla cyanea in alabastro acutiuscula tubo gracili tereti 8–9 mm. longo, lobis ovato-ellipticis obtusis vel acutiusculis aequilongis; apices antherarum breviter exserti.—Colombia: Intendencia del Chocó, La Concepción, 15 km. east of Quibdó, alt. 75 meters, April–May, 1931, *W. A. Archer 1943* (U. S. Nat. Herb. No. 1,519,077, type), *2095*.

"Clavo. Leaves stiff and brittle; flowers the color of indigo, with the odor of cloves." A striking plant, with handsome, neat foliage, and undoubtedly with exceptionally showy flowers. Related to *Faramea calophylla* Standl., of Colombia, but in that the calyx segments appear to be minute, rather than greatly elongate. Although the type material of that species is in fruit and the specimens of *F. fragrans* are in flower, making direct comparison difficult, there is no doubt, I think, that the plants represent altogether distinct species.

Faramea Harmsiana, sp. nov.—Frutex ramosus 1.5 m. altus omnino glaber, ramulis gracilibus acute quadrangulatis, internodiis elongatis; stipulae vaginantes in vaginam latam altius connatae c. 1 cm. longae, lobis ovatis apice obtusis vel rotundatis et mucronatis; folia magna breviter petiolata firme papyracea, petiolo gracili 2 cm. longo; lamina oblongo-elliptica c. 26 cm. longa et 11 cm. lata apice breviter subabrupte acuminata, acumine triangulari obtuso, basi acuta vel acutiuscula, supra in sicco fusco-olivacea, costa prominula, nervis vix prominulis, subtus conspicue pallidior brunnescens, costa gracillima elevata, nervis lateralibus utroque latere c. 16 gracillimis prominentibus angulo lato fere recto divergentibus subrectis prope marginem in nervum collectivum regularem conjunctis, nervo altero obscuro ad marginem contiguo, nervulis prominulis laxissime reticulatis; inflorescentia terminalis cymoso-corymbosa 5 cm. longe pedunculata erecta basi trichotoma et foliis 2 parvis fulcrata 8 cm. longa et fere aequilata, ramis valde adscendentibus crassiusculis rectis subcompressis, floribus plerisque 1–2 mm. longe pedicellatis cymosis vel subumbellatis congestis, bracteis obsoletis; hypanthium albidum 1.5 mm. longum, calyce brevissime cupulari vix 0.5 mm. longo remote dentato, dentibus triangularibus acutis erectis; corollae tubus 7–9 mm. longus gracilis supra vix dilatatus pallide caeruleus, lobis 4 lanceolato-oblongis 4–5 mm. longis patentibus acutis intense caeruleis.—Peru: Upper Marañón, mouth of Río Santiago, in upland forest, alt. 160 meters, November 18, 1924, *G. Tessmann 4570* (herb. Berol., type).

The nervation of the leaves is similar to that of *F. miconioides* Standl., described from the Department of Junín, Peru. The latter differs in several characters, most conspicuously in its large stipules, which are 3.5–4 cm. long.

This fine Peruvian shrub, which, like many other species of the genus, must be more than ordinarily handsome in the forest, is named for Dr. H. Harms, who has contributed largely by his systematic studies of difficult groups to the present knowledge of the Peruvian flora.

Faramea heterophylla Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 131. 1881.

Brazil: Gavea, State of Rio de Janeiro, February, 1898, *Ule 4595* (herb. Berol.); a shrub growing on rocks at an elevation of 800 meters.

Faramea Killipii Standl. Field Mus. Bot. 7: 73. 1930.

Besides the material already reported under this species, another collection has been examined recently: Colombia: La Baja, Prov. Pamplona, 2,850 meters, February, 1848, *L. Schlim 1690* (herb. Leningrad). The collector describes the corolla as violet.

Faramea lutescens, sp. nov.—Omnino glabra, ramulis crassis in sicco lutescentibus teretibus, novellis interdum subcompressis, internodiis elongatis foliis brevioribus; stipulae persistentes 7–12 mm. longae ad medium connatae et laxe vaginantes rotundato-ovatae apice obtusae vel rotundatae et 2–3 mm. longe subulato-mucronatae; folia mediocria vel majuscula brevissime petiolata crasse papyracea vel subcoriacea, petiolo crasso 4–10 mm. longo; lamina oblonga vel anguste elliptico-oblonga 8.5–24 cm. longa 3–7 cm. lata acuta vel obtusa et abrupte caudato-acuminata, acumine angusto longe attenuato interdum lineari usque ad 2 cm. longo, basi acuta, margine saepe anguste revoluto, supra in sicco pallide luteo-viridis, costa elevata, nervis prominulis, subtus vix pallidior, costa gracili elevata, nervis lateralibus utroque latere c. 12 gracillimis prominulis angulo fere recto divergentibus prope marginem conjunctis, venulis prominulis laxissime reticulatis; inflorescentia terminalis cymoso-corymbosa sessilis et basi foliaceo-bracteata vel usque ad 4 cm. longe pedunculata, subdense multiflora 6–10 cm. lata, basi tri- vel pauciradiata, ramis albidis vel lutescentibus crassiusculis, floribus cymosis vel subumbellatis, pedicellis rectis usque ad 14 mm. longis, bracteis parvis late ovatis; hypanthium pallidum 1.5 mm. longum, calyce aequilongo pallido truncato et remote breviter subulato-denticulato usque ad 4.5 mm. lato hypanthio multo latiore; corolla in alabastro longissime attenuata plus minusve angulata 16–20 mm. longa, tubo brevi 2.5 mm. lato, lobis lineari-lanceolatis longissime attenuatis tubo duplo vel ultra longioribus.—Colombia: Provincias de Chocó y Barbacoas, Ríos San Juan y Patio, alt. 80 meters, March, 1853, *J. Triana 3154* (herb. Field Mus. No. 650,509, type, duplicate in herb. Paris). Provincias de Chocó y Barbacoas, alt. 80 meters, *Triana 1731* (P), *1732* (P).

The specimens attract attention because of the pale yellowish green coloring of the leaves. The flower buds are conspicuous

because of the fact that they are unusually long-attenuate to the apex.

Faramea macrura, sp. nov.—Omnino glabra, ramulis gracilibus subteretibus fusco-brunneis, internodiis valde elongatis; stipulae deciduae, non visae; folia mediocria breviter petiolata subcoriacea, petiolo gracili 5–10 mm. longo; lamina lineari-oblonga vel lineari-lanceolata 10–16 cm. longa 1.5–3 cm. lata longissime lineari-attenuata, acumine 1.5–2.5 cm. longo, basin versus longiuscule sensim attenuata, lucida, supra in sicco fusca, costa elevata, nervis venisque prominulis, subtus paullo pallidior brunnescens, costa gracili elevata, nervis lateralibus utroque latere c. 18 prominulis angulo fere recto divergentibus ante marginem in nervum collectivum conjunctis, ceteris subparallelis minus prominentibus interjectis, venulis prominulis arcte reticulatis; inflorescentia terminalis longe pedunculata basi umbellatim pauciradiata, radiis gracilibus apice compressis cymis paucifloris laxis terminatis, floribus graciliter pedicellatis, pedicellis usque ad 8 mm. longis rectis; bracteae ad basin inflorescentiae insertae foliaceae coloratae ovatae vel ellipticae usque ad 5 cm. longae et 2.5 cm. latae apice longissime caudatae, acumine 1–1.5 cm. longo; hypanthium subglobosum 1 mm. longum, calyce truncato aequilongo; discus obtuse conicus calyce duplo longior.—Colombia: Provincia del Chocó, Noapama, March, 1853, *J. Triana 3154* (*3*) (herb. Paris, type).

Referable to the subgenus *Eufaramea,* which is distinguished by the large colored bracts of the inflorescence. *Faramea macrura* is similar to the Peruvian *F. anisocalyx* Poepp. & Endl., differing from that in the narrow leaves, slender pedicels, and long slender tips of the bracts.

Faramea Malmei, sp. nov.—Frutex arborescens 2–3-metralis, omnino glaber, ramis erecto-patentibus, cortice tenui laevigata, ramulis gracilibus subteretibus olivaceis laevibus rectis, internodiis 4.5–8 cm. longis; stipulae cito deciduae vel caducae liberae erectae e basi late ovato-triangulari in aristam elongatam angustatae; folia brevissime petiolata opposita mediocria tenuiter coriacea in sicco flavescentia, petiolo crasso 2–3 mm. tantum longo; lamina oblonga 9–11 cm. longa 3–4 cm. lata abrupte caudato-acuminata, acumine e basi triangulari lineari-attenuato c. 1 cm. longo, basi late obtusa, rotundata vel leviter cordata, supra opaca vel sublucida, costa pallida elevata, venis vix prominulis, subtus paullo pallidior, opaca, costa gracili elevata, nervis lateralibus utroque latere c. 14 gracillimis vix prominulis angulo recto divergentibus fere rectis paullo ante marginem conjunctis, nervulis vix prominulis arcte reticulatis, lamina latiuscule pallido-marginata; inflorescentia terminalis sessilis cymoso-paniculata c. 8 cm. longa et 9 cm. lata laxe multiflora basi trichotoma, ramis 2–3-trichotomis late adscendentibus rectis, floribus in cymulas laxas trifloras dispositis, bracteis persistentibus minutis lanceolato-subulatis, pedicellis rigidis sed gracilibus plerumque 2–3

mm. longis, flore terminali cymulae brevius pedicellato vel sessili; hypanthium late obovoideum 1 mm. longum, calyce 0.7 mm. longo 4-dentato, dentibus ovato-triangularibus acutis vel acuminatis; corolla glabra in alabastro crassiuscula acuta, tubo 5 mm. longo et 1.5 mm. lato supra vix dilatato, lobis 4 oblongis acutiusculis 3–4 mm. longis subpatentibus intus glabris; antherae lineares semiexsertae lobos corollae aequantes; stylus inclusus; fructus transverse ovalis 8 mm. latus.—Brazil: Cuyabá, Matto Grosso, in margine silvulae loco arenoso, January 3, 1894, *G. A. Malme 1300* (herb. Stockholm, type). Santa Anna da Chapada, Matto Grosso, in capoeiras et in silvis, September, 1902, *Malme 2360* (S); June, 1903, *Malme 2360a* (S).

Related to *Faramea coarinensis* Muell. Arg., a species whose type was collected by Martius on the upper Amazon. In that the leaves have more numerous pairs of nerves and are "narrowly lance-elliptic" in outline.

Faramea montevidensis (C. & S.) DC. Prodr. 4: 497. 1830. *Tetramerium montevidense* C. & S. Linnaea 4: 29. 1829.

Brazil: Porto Alegre, Rio Grande do Sul, in silvula "capão" umbrosa, November, 1901, *Malme 498* (herb. Stockholm); a shrub 2 meters high or less; corolla white.

Faramea phaneroura, sp. nov.—Arbor parva omnino glabra ramulis gracilibus, novellis in sicco compressis et plus minusve quadrangulatis, internodiis elongatis; stipulae brevissime connatae 2–2.5 mm. longae late rotundatae et 1.5–2 mm. longe mucronatae; folia mediocria petiolata subcoriacea, petiolo usque ad 1 cm. longo; lamina oblonga vel oblanceolato-oblonga 7.5–11 cm. longa 2.5–3.5 cm. lata apice subrotundata et abrupte in caudam linearem 1–1.5 cm. longam desinens, basi acuta vel attenuata, fusco-olivacea, subtus fere concolor, costa utrinque prominente, pallida, nervis lateralibus utroque latere c. 13 pallidis rectis in marginem desinentibus angulo lato abeuntibus, nervulis obsoletis; inflorescentia terminalis 2.5 cm. longe pedunculata laxe multiflora corollis neglectis c. 1.5 cm. longa et 3 cm. lata, ramis interdum subelongatis et plus minusve secundifloris, floribus sessilibus vel usque ad 3 mm. longe pedicellatis, pedicellis crassiusculis; hypanthium obovoideo-globosum 1 mm. longum, calyce truncato 1 mm. longo; corolla alba in alabastro 15–17 mm. longa tubo fere lineari supra vix dilatato, lobis linearibus tubo paullo brevioribus.—Brazil: Gurupá, civ. Pará, silva non inundabili, December 27, 1916, *A. Ducke 23055* (herb. Berol., type).

Description of new species is not to be commended in the genus *Faramea* in which there are already so many described species, many of them based on slight and apparently variable characters. Although the plant here described has no outstanding characters, it has not been possible to refer it to any of the species known from Amazonia, or from any other region of Brazil.

Faramea singularis, sp. nov.—Frutex usque ad 4 m. altus omnino glaber, ramulis gracilibus subteretibus pallide olivaceis internodiis valde elongatis; stipulae persistentes annulares obscure bilobae 1.5 mm. longae, lobis abrupte in aristam gracilem 5 mm. longam abeuntibus; folia breviter petiolata mediocria firme membranacea, petiolo gracili 5–7 mm. longo; lamina oblonga vel oblanceolato-oblonga 7.5–12 cm. longa 2–4 cm. lata subabrupte caudato-acuminata, acumine c. 1 cm. longo angusto apice obtusissimo, basi acuta vel acuminata, supra in sicco laete viridis, costa venisque ut quoque venulis prominentibus, utrinque glabra, subtus paullo pallidior, costa gracili pallida prominente, nervis lateralibus utroque latere c. 11 pallidis gracilibus prominentibus angulo lato saepe fere recto divergentibus fere rectis vel leviter curvis remote a margine laxe conjunctis, nervulis prominulis laxe reticulatis; flores terminales pauci umbellati bracteolati, pedicellis crassis 2–3 mm. longis; bracteolae basi hypanthii insertae in sicco pallide viridescentes lanceolatae vel anguste lanceolatae usque ad 3 cm. longae interdum flores aequantes longe attenuatae tenues; hypanthium breve, calyce pallido late campanulato 2 mm. longo inaequaliter remote 4-dentato, dentibus angustis erectis; corolla glabra, tubo crassiusculo 2 cm. longo prope medium 2–3 mm. lato fauce paullo contracto recto, lobis 4 patentibus anguste lanceolato-oblongis 10–12 mm. longis attenuato-acuminatis intus glabris.—Brazil: Santa Anna da Chapada, State of Matto Grosso, in silvis praesertim in subhumidis, October 7, 1902, *G. O. A. Malme 2457* (herb. Stockholm, type).

The plant belongs to the subgenus *Eufaramea* as defined by Mueller in the *Flora Brasiliensis*. . From all the known species of the group it differs in its simply umbellate, almost capitate flowers.

Faramea spathacea Muell. Arg. in herb., sp. nov.—Frutex ramosus omnino glaber, ramulis gracilibus teretibus vel stipulis decurrentibus angulatis in sicco olivaceis, internodiis elongatis sed foliis brevioribus; stipulae breviter connatae laxae 2–2.5 mm. longae rotundatae apice 1 mm. longe subulato-mucronatae persistentes; folia mediocria petiolata crasse membranacea vel subcoriacea, petiolo gracili 4–8 mm. longo; lamina anguste elliptico-oblonga vel interdum oblanceolato-oblonga 5–12 cm. longa 1.5–4 cm. lata abrupte longiacuminata, acumine angusto attenuato obtuso, basi acuta vel obtusa, supra in sicco fusco-olivacea sublucida, costa ut venis prominente, subtus fere concolor, anguste pallide marginata, costa gracili elevata, nervis lateralibus utroque latere c. 13 gracillimis prominulis angulo fere recto divergentibus leviter arcuatis prope marginem conjunctis, venulis prominulis arcte reticulatis; flores axillares solitarii vel in cymulas trifloras aggregati graciliter 1–2.5 cm. longe pedicellati, pedicellis vel pedunculis interdum recurvis; calyx tubulosus truncatus 4.5–7 mm. longus 2.5–3 mm. latus; corolla alba, tubo gracillimo 14–25 mm. longo 1.5 mm. lato, lobis lineari-attenuatis 10–16 mm. longis patentibus.—Venezuela: Guardia de San Agustín prope Caripe, *Moritz 468* (herb. Berol., type; repre-

sented in herb. Field Mus. by a photograph and fragment).—Colombia: Without locality, in 1843, *Funck* (herb. Paris). Pericos, Prov. Ocaña, 1,200 meters, May, 1846–52, *Schlim 531* (P).

Among the *Faramea* species of northwestern South America this is unique in its chiefly solitary and axillary flowers with elongate tubular calyx.

Faramea tetragona Muell. Arg. Flora 58: 472. 1875.

The species was based upon a specimen collected by Sello in Brazil, the exact locality being unknown. A photograph of the type, from the Berlin herbarium, is in the herbarium of Field Museum. The following collections are conspecific: Brazil: Santos, in 1875, *Mosén 3788* (herb. Stockholm, herb. Paris), *3787* (herb. Paris). Alto da Serra, São Paulo, in silva, 700 meters, May, 1916, *Dusén 18099* (S).

The first collection cited agrees exactly with the type. The second appears at first glance decidedly different because of its much broader leaves, but in floral structure it agrees with No. 3788, and I am inclined to believe that both numbers represent forms of a remarkably variable species.

Faramea Weddellii, sp. nov.—Frutex ut videtur parvus ramosus omnino glaber, ramis in sicco pallide viridibus teretibus, novellis costa decurrente stipularum angulatis, internodiis elongatis sed foliis brevioribus; stipulae persistentes brevissime connatae late rotundatae 3 mm. longae apice in aristam erectam aequilongam desinentes; folia mediocria brevissime petiolata subcoriacea in sicco luteo-viridia, petiolo vix 3 mm. longo; lamina elliptico-oblonga vel ovato-elliptica 5–11 cm. longa 2–5.5 cm. lata cartilagineo-marginata acuta vel breviter acutissime acuminata, basi late rotundata, sublucida, costa supra ut nervis valde elevata, costa subtus elevata, nervis lateralibus utroque latere c. 10 angulo lato adscendentibus gracillimis prominentibus ante marginem arcuato-conjunctis, nervulis prominulis arctissime reticulatis; flores 3–4 terminales 1 mm. longe pedicellati foliis fere occulti; hypanthium 1 mm. longum, calyce aequilongo truncato campanulato dentibus 4 setiformibus remotis erectis pallidis onusto; corolla glabra, tubo gracillimo 12 mm. longo supra vix dilatato, lobis 4 linearibus patentibus attenuatis 9–10 mm. longis.—Brazil: Entre Goyaz et Cuyabá, November-December, 1844, *H. A. Weddell 2889* (herb. Paris, type).

Noteworthy for the few terminal subumbellate flowers, and for the much thickened and indurate leaf margins.

Galium equisetoides (Cham. & Schlecht.), comb. nov. *Rubia equisetoides* Cham. & Schlecht. Linnaea 3: 332. 1828.

Gonzalagunia bunchosioides Standl. Field Mus. Bot. 8: 162. 1930.

An addition to the recorded flora of Colombia is this species, described recently from the Department of Loreto, Peru. Colombia: Umbría, Comisaría del Putumayo, 325 meters, in clearing, *Klug 1727*. A shrub with white corollas.

Gonzalagunia pachystachya, sp. nov.—Arbor 6-metralis, trunco 6 cm. diam., ramulis crassis subteretibus brunnescentibus dense pilis longis rigidis patentibus hirsutis, internodiis elongatis; stipulae persistentes suberectae ferrugineae firme membranaceae anguste triangulares attenuatae 16–19 mm. longae dorso ad costam breviter hirsutae; folia magna breviter petiolata firme membranacea, petiolo gracili 7–10 mm. longo; lamina ovata vel oblongo-ovata 13–18 cm. longa 6.5–8 cm. lata longe anguste attenuato-acuminata basi plus minusve obliqua obtusa, supra in sicco fusca sparsissime breviter hirsuta, subtus pallida ubique ad nervos densius longipilosa, costa gracili elevata, nervis lateralibus utroque latere c. 10 arcuato-adscendentibus gracilibus prominentibus; inflorescentia spiciformis densissime multiflora breviter pedunculata 15–22 cm. longa basi 3 cm. lata supra angustata, rhachi densissime breviter ferrugineo-hirsuta, floribus in cymas paucifloras aggregatis sessilibus vel breviter pedicellatis, bracteis parvis linearibus floribus multo brevioribus hispidulis; hypanthium globosum densissime hispidulum, sepalis 4 late ovatis obtusis intus glabris 1–1.5 mm. longis; corolla alba extus pilis rigidis valde adscendentibus hispida, tubo gracili supra paullo dilatato 7 mm. longo, lobis 4 oblongis obtusis vel subacutis intus puberulis aequilongis.—Peru: Mouth of Río Santiago. Marañón Valley, in upland forest, alt. 160 meters, October 15, 1924, *G. Tessmann 4295* (herb. Berol., type; fragment in herb. Field Mus.).

Among the few species of *Gonzalagunia* known from Peru, the present plant is noteworthy for its large and very dense, not interrupted inflorescences, as well as for its large leaves, with distinctive pubescence.

Hamelia boyacana, sp. nov.—Ramuli graciles brunnescentes, novelli sparse minutissime puberuli; folia opposita mediocria petiolata membranacea, petiolo gracili 7–13 mm. longo; stipulae filiformi-subulatae c. 3 mm. longae erectae; lamina oblonga vel oblanceolato-oblonga 8–12 cm. longa 3–4 cm. lata subabrupte longiacuminata basi acuta vel attenuata, supra sparse papillosa, subtus glabra vel tantum ad costam elevatam puberula, nervis subtus prominulis gracillimis; inflorescentia terminalis sessilis vel pedunculata laxe pauciflora, ramis brevibus dense minute puberulis, paucifloris, floribus vix secundis, pedicellis 2–9 mm. longis; hypanthium late oblongum 4 mm. longum minute puberulum; calycis lobi distincti lineari-lineares 3 mm. longi ciliolati erecti; corolla lutea extus minute puberula, tubo 4 mm. longo, fauce sursum sensim dilatato 25 mm.

longo supra 9 mm. lato, lobis suberectis rotundato-ovatis obtusis 4 mm. longis.—Colombia: El Humbo, Department of Boyaca, alt. 750 meters, edge of forest, October 5, 1932, *A. E. Lawrance 503* (herb. N. Y. Bot. Gard., type; fragment in herb. Field Mus.).

Vernacular name, "tinto." According to the collector, "very attractive, and rare here." The large broad yellow corolla and the narrow elongate calyx lobes are the outstanding characters of the plant, which has no very close relatives in South America, although some exist in Central America.

The collector states that this plant is a tree 50–70 feet high, with a trunk one to two feet in diameter, dimensions that I consider most improbable for a member of the genus *Hamelia*.

Hamelia panamensis Standl. Contr. U. S. Nat. Herb. 20: 208. 1919.

The species has been collected at various localities in Panama, and it may be reported now from adjacent South America: Colombia: Intendencia del Chocó, between La Oveja and Quibdó, April, 1931, *W. A. Archer 1736* (U. S. Nat. Herb.). Vernacular name, "huesito." Flowers with the color of cream cheese.

Heterophyllaea Fiebrigii (Krause), comb. nov. *Hindsia Fiebrigii* Krause, Bot. Jahrb. Engler 40: 320. 1908.

More careful inspection of a photograph and fragment of the type of *Hindsia Fiebrigii*, from Toldos, Bolivia, shows clearly that the plant is really a species of *Heterophyllaea*, since it has the characteristic crenate and glandular-pustulate leaves of that genus. As a matter of fact, it may be only a variety of *H. lanceolata* Hook. f., but that and *H. pustulata* Hook. f. are glabrous plants, while *H. Fiebrigii* has conspicuous and rather copious pubescence.

Hillia Weberbaueri, sp. nov.—Omnino glabra, ramulis crassiusculis subteretibus fusco-brunneis lenticellis magnis elevatis sparse conspersis, internodiis elongatis; stipulae deciduae crassiusculae oblongae 18 mm. longae 6 mm. latae obtusae; folia mediocria breviter petiolata subcoriacea opposita, petiolo crassiusculo 5–8 mm. longo; lamina anguste oblanceolato-oblonga 8.5–13.5 cm. longa 2.5–3.5 cm. lata abrupte longiuscule acuminata, acumine angusto acuto, basin versus longe attenuata, supra in sicco fusco-brunnescens, costa vix prominula, nervis lateralibus utroque latere c. 8 obscuris angulo acutissimo adscendentibus, subtus paullo pallidior, costa crassiuscula brunnescente prominula, venis obsoletis; flores terminales solitarii sessiles; hypanthium oblongum 8 mm. longum, calyce nullo vel caduco; corolla hexamera glabra, tubo gracillimo c. 7 cm. longo 2.2 mm. lato fauce non vel vix dilatato, lobis oblongis obtusis 1.5 cm. longis patentibus; antherae inclusae;

cetera ignota.—Peru: Without locality, 1909–14, *A. Weberbauer 6955* (herb. Field Mus. No. 629,243, type).

Similar to *Hillia odorata* Krause, likewise Peruvian, but the latter is distinguished at a glance by its much broader leaves.

Hoffmannia Duckei, sp. nov.—Suffrutex erectus metralis plus minusve ramosus, caulibus teretibus fusco-ferrugineis gracilibus dense minute patenti-pilosulis, internodiis valde elongatis interdum foliis longioribus; stipulae persistentes erectae 7–8 mm. longae e basi late ovato-triangulari longe attenuato-acuminatae dense pilosulae; folia opposita vel ternata breviter petiolata membranacea, petiolo gracili pilosulo 7–15 mm. longo; lamina lanceolato-oblonga vel anguste lanceolato-oblonga 14–27 cm. longa 4–10 cm. lata subabrupte et longissime attenuato-acuminata, acumine angusto longe attenuato saepe subfalcato, basin versus longe attenuata, supra in sicco fusca vel brunnescens ubique sparse minute pilosula, costa venisque prominulis, subtus paullo pallidior, pilis paullo longioribus patentibus densius pilosula, costa gracili elevata, nervis lateralibus utroque latere c. 13 obliquis gracillimis prominulis angulo latiusculo adscendentibus arcuatis juxta marginem conjunctis, nervulis prominulis sed vix conspicuis laxe reticulatis; flores in axillis dense fasciculati sessiles numerosi; hypanthium cum calyce late campanulatum 2 mm. longum sparse minute pilosulum vel fere glabrum, calyce truncato vel obscure remote denticulato; corolla alba extus minute hispidulo-pilosula, tubo gracillimo 12 mm. longo supra paullo sensim dilatato fauce 1.8 mm. lato, lobis 4 oblongis, 3–3.5 mm. longis acutis, apicibus loborum in alabastro brevissime liberis.—Brazil: Faro, State of Pará, Castanhal da Boa Vista, silva non inundata, January 31, 1910, *A. Ducke 18899* (herb. Berol., type). Bella Vista ad cataractum infimum fluminis Tapajoz, State of Pará, in silva non inundata, February 5, 1917, *Ducke 18900* (herb. Berol.).

Only two other species of *Hoffmannia* are known from Brazil, both quite different from the present plant. *Hoffmannia Duckei* is an unusually well-marked species for this difficult genus, notable for its very long-acuminate leaves and its dense clusters of sessile, slender flowers.

Hoffmannia Williamsii, sp. nov.—Frutex, ramis gracilibus subteretibus, novellis dense ferrugineo-villosis, internodiis 2.5–5.5 cm. longis; folia opposita longiuscule petiolata herbacea, petiolo gracili 1–2.5 cm. longo ferrugineo-villoso; lamina oblanceolata vel oblanceolato-oblonga 8–12.5 cm. longa 2.5–3.3 cm. lata longe anguste acuminata, acumine obtusiusculo saepe subfalcato, basin versus longe sensim attenuata et longe decurrens, supra viridis glabra, subtus paullo pallidior et rufescens, praesertim ad venas aliter sparsius villosa, costa gracili elevata, nervis lateralibus utroque latere c. 8 gracillimis arcuatis prope marginem conjunctis; flores in axillis dense cymoso-fasciculati, cymis pauci- vel multifloris sessili-

bus vel brevissime pedunculatis, floribus sessilibus vel vix 1 mm. longe pedicellatis; hypanthium primo villosulum, calycis lobis late triangularibus obtusiusculis brevissimis vix 0.5 mm. longis; bacca ellipsoidea glabrata 4–5 mm. longa basi obtusa apice calyce persistente coronata.—Peru: San Roque, Dept. San Martín, edge of trail, alt. 1,400 meters, January 13, 1930, *Llewelyn Williams 7369* (herb. Field Mus. No. 614,554, type).

In general appearance the plant resembles closely *H. aggregata* (R. & P.) Schum., likewise Peruvian, but in that the leaves are wholly glabrous.

Houstonia longifolia and **H. canadensis.**—In most recent works treating the botany of the northeastern United States these two names, the latter including the synonymous *H. ciliolata,* have been considered to represent distinct species. They were so treated in the *North American Flora* (vol. 32, 1918) by the writer, who had assumed that the forms represented by the names were distinct enough to be recognized without great difficulty. However, a short time ago Mr. C. C. Deam submitted for study his complete series of Indiana specimens of the two species, with a request for some practical means of distinguishing them.

Careful study of this material reveals that both forms are represented in Indiana, but that both are scattered over the state and do not have distinctive ranges. It is apparent, also, that even extreme forms are not especially unlike, and that at best *H. canadensis* Willd. is a poorly marked species. All the several characters suggested to separate the two forms break down when the Indiana material is examined, nor does material from other states appear to be more easily separable. Certainly, if the specimens came from the tropics, no one except the most determined "splitter" would consider distinguishing them. It therefore seems best to reduce *H. canadensis* and its synonym *H. ciliolata* Torr. outright to synonymy under *H. longifolia* Gaertn., or else to recognize as a rather poorly marked variety *H. longifolia* var. *ciliolata* (Torr.) Wood.

Isertia Krausei, sp. nov.—Ramuli crassi glabri; stipulae c. 1 cm. longae profunde bifidae glabrae, lobis obtusis; folia opposita breviuscule petiolata crasse coriacea, petiolo crasso 3–4 cm. longo glabro; lamina anguste oblonga vel oblanceolato-oblonga c. 32 cm. longa et 9.5 cm. lata subabrupte longiacuminata, acumine angusto attenuato acuto, basin versus longe sensim attenuata, supra fusca glabra lucida, venis arcte reticulatis impressis, subtus pallidior, ad venulas non tomentosas sparse breviter pilosula, in areolis minute albo-tomentulosa, costa crassa elevata, nervis lateralibus utroque latere c. 25 elevatis gracilibus rectis angulo fere recto divergentibus,

nervulis arcte reticulatis valde prominentibus; panicula thyrsoidea sessilis vel pedunculata et basi foliaceo-bracteata 22 cm. longa et 7 cm. lata densiuscule multiflora inferne interrupta, ramis brevibus crassis adscendentibus vel subpatentibus angulatis glabris, floribus sessilibus vel breviter crasse pedicellatis, bracteis parvis late ovatis obtusis; hypanthium obovatum glabrum 7 mm. longum; calyx 4-dentatus, dentibus late triangularibus obtusis c. 2 mm. longis; corolla extus glabra crasse tubulosa 3.5 cm. longa, tubo cylindraceo 5–6 mm. lato, lobis ovalibus obtusis 6–7 mm. longis, fauce dense barbata.—Peru: Dept. Libertad, *A. Weberbauer 7066* (herb. Field Mus. No. 7066, type).

The species was indicated in the herbarium as new by Dr. Krause, but the name which he gave to the plant already has been published by the writer for another species. *Isertia Krausei* is a well-marked species, distinguished particularly by its stiff, narrow leaves, with minute and scant tomentum, which is confined to the bottom of the areoles on the lower leaf surface.

Isertia Pittieri Standl. Field Mus. Bot. 8: 346. 1931. *Cassupa Pittieri* Standl. Contr. U. S. Nat. Herb. 17: 445. 1914.

There has been received lately a collection of this rare species that extends somewhat its previously known range: Colombia: Quibdó, Río Atrato, Intendencia del Chocó, 60 meters, in 1931, *W. A. Archer 1776* (U. S. Nat. Herb.). The collector's notes report that the vernacular name is "jaboncillo," and that the plant is a tree 6–9 meters high. The long white corollas soon fall from the calyx but are held hanging by the stout curved style. The flowers have a strong musky odor, which, however, does not prevent their being used to form funeral wreaths. The leaves are employed as a substitute for soap, hence the vernacular name.

Ixora peruviana (Spruce) Standl. Field Mus. Bot. 7: 296. 1931. *Cephalanthus breviflorus* Spruce ex Schum. in Mart. Fl. Bras. 6, pt. 6: 129. 1889, non *Ixora breviflora* Hiern. *C. peruvianus* Spruce ex Schum. loc. cit.

It is rather strange that both Spruce and Schumann, both of them discriminating botanists, should have so mistaken the tribal position of this Peruvian plant. However, they were unacquainted with the fruit, which would have indicated clearly that the plant could not be referred to the genus *Cephalanthus*. Recent collections bear mature fruit, which proves that the plant is really a member of the genus *Ixora*. As a matter of fact, it is closely related to the well-known *I. floribunda* (Rich.) Griseb., of the West Indies and Colombia. Both *C. breviflorus* and *C. peruvianus* were described from Tarapoto, and they were distinguished chiefly on the size of

the corolla. It seems probable that the material represents only a single species.

The following specimens of *Ixora peruviana* are in the herbarium of Field Museum:

Peru: Tarapoto, *Ule 6374* (photo. and fragm. of specimen in herb. Berol.); *Spruce 4175* (photo. of type collection in herb. Berol.); December, 1929, *Williams 6717, 6716, 6595.*—Bolivia: Yapacani, 4,000 meters, June, 1892, *Kuntze.* Río Surutú, Dept. Santa Cruz, *Steinbach 3483.* San Buena Ventura, *R. S. Williams 627.*

Ixora Duckei, sp. nov.—Frutex metralis dense ramosus, ramis crassis ochraceis, novellis plus minusve compressis puberulis, internodiis abbreviatis; folia mediocria sessilia vel vix 2 mm. longe petiolata oblongo-ovata vel elliptico-oblonga subcoriacea 4.5–8 cm. longa 2–4 cm. lata acuta vel acutiuscula basi latissime rotundata subtruncata vel breviter cordata glabra lucida, costa supra prominente nervis obsoletis, subtus concoloria costa prominente, nervis lateralibus remotis paucis prominulis, nervulis obsoletis; inflorescentiae cymoso-paniculatae laxe multiflorae vix foliis longiores, ramis gracilibus puberulis, bracteis parvis, floribus sessilibus vel breviter crasse pedicellatis; hypanthium puberulum, calyce late campanulato, dentibus late ovatis puberulis obtusis vel acutis vix 1 mm. longis; corolla rubida extus dense puberula in alabastro acuto, tubo gracillimo 13–14 mm. longo, lobis 4 rotundato-ellipticis 3–4 mm. longis.—Brazil: Campinas do Achipicá, Rio Trombetas infer., civ. Pará, September 20, 1910, *A. Ducke 23051* (herb. Berol., type).

The available material of this plant is not in altogether satisfactory condition, and appears to have been taken from a somewhat weather-beaten shrub of poor development. In its essentially sessile leaves with more or less cordate bases, the proposed species appears to be fully distinct from any other Brazilian *Ixora* with pubescent corollas.

Ixora escalerae Standl. Field Mus. Bot. 8: 173. 1930.

The species was based upon a single collection from the Department of Loreto, Peru, *Ule 6778.* The following collection agrees well with the type: Colombia: Umbría, Comisaría del Putumayo, 325 meters, in forest, *Klug 1795;* a shrub 2 meters high; corolla cream-colored.

Ixora Gaillardii, sp. nov.—Arbuscula 3–4-metralis praeter inflorescentiam omnino glabra, ramulis crassiusculis teretibus interdum minutissime papillosis, internodiis elongatis; stipulae induratae persistentes breviter connatae 5–6 mm. longae late rotundatae apice mucronatae; folia sessilia mediocria coriacea anguste lanceolato-oblonga 10–16.5 cm. longa 2.5–5.5 cm. lata apicem ver-

sus sensim anguste attenuata basi rotundata et breviter cordata, supra in sicco fusco-olivacea costa prominente venis obscuris vel obsoletis, subtus paullo pallidiora, costa gracili elevata, nervis lateralibus utroque latere 10–12 gracillimis prominulis angulo latiusculo adscendentibus leviter arcuatis prope marginem junctis, nervulis obscuris laxe reticulatis; inflorescentia terminalis sessilis cymoso-umbellata laxiuscule multiflora c. 3.5 cm. longa et 5.5 cm. lata multiradiata, ramis primariis rectis suberectis sparse minute puberulis vel glabratis 1–1.5 cm. longis, cymis paucifloris densis, floribus arcte sessilibus, bracteis angustis usque ad 6 mm. longis, bracteolis minutis ovatis; hypanthium subglobosum 1–1.5 mm. longum minutissime puberulum, calycis lobis 0.8 mm. longis ovalibus late obtusis; corolla rosea extus minutissime puberula in alabastro obtusa, tubo gracili 5–7 mm. longo supra vix dilatato, lobis 4 patentibus 3–4 mm. longis ovalibus apice rotundatis; antherae semiexsertae. —Venezuela: Puerto Zamuero, Río Orinoco, in forest, June 12, 1887, *A. Gaillard 26* (herb. Paris, type).

The species is a well-marked one for this genus, noteworthy particularly for its long narrow sessile coriaceous leaves with rounded and more or less cordate bases.

Joosia Dielsiana, sp. nov.—Arbor 6-metralis, trunco 12 cm. diam., ramulis gracilibus subteretibus fusco-brunnescentibus sparse adpresso-pilosis vel glabratis, internodiis elongatis; stipulae anguste oblongae c. 1 cm. longae deciduae obtusae glabratae, marginibus recurvis; folia mediocria petiolata crasse membranacea, petiolo gracili 1–2 cm. longo sparse adpresso-piloso vel fere glabro; lamina elliptico-oblonga vel anguste elliptica 8.5–18 cm. longa 3–7.5 cm. lata acute acuminata basi acuta supra in sicco fusca sublucida glabra, costa nervisque prominentibus, subtus pallidior brunnescens primo pilis laxis adpresso-pilosa cito glabrata, costa gracili elevata, nervis lateralibus utroque latere c. 10 angulo semirecto vel paullo latiore adscendentibus gracillimis prominentibus arcuatis marginem fere attingentibus; inflorescentia terminalis dichotoma vel trichotoma longipedunculata, pedunculo 6–8 cm. longo erecto, ramis simplicibus adscendentibus vel subrecurvis 1.5–2.5 cm. longis sublaxe paucifloris, floribus arcte sessilibus; hypanthium cylindraceum 2.5 mm. longum dense pilis fulvis adpresso-tomentosum; calyx campanulatus 3 mm. longus et fere aequilatus dense adpresso-pilosulus brevissime dentatus, dentibus latis inaequalibus obtusis vel rotundatis; corolla extus dense adpresso-pilosa, tubo gracili viridi-luteo 11–12 mm. longo supra vix dilatato, lobis 5 patentibus aequilongis ad medium bilobis, lobis late oblongis undulato-crispatis intus glabris; capsula glabrata oblonga subteres 1.5–2.5 cm. longa septicide bivalvis, valvis breviter bilobis.—Peru: Upper Marañón, mouth of Río Santiago, in upland forest, alt. 160 meters, November 5, 1924, *G. Tessmann 4478* (herb. Berol., type).

Of the genus *Joosia* there have been described only two species, both of which are known or reported to occur in Peru. In both

J. dichotoma (R. & P.) Karst. and *J. umbellifera* Karst. the capsules are greatly elongate, 3.5–6.5 cm. long or larger, and the valves after dehiscence are spirally twisted. In the present species there is no indication of contortion of the valves. The fruit of *J. Dielsiana* is so unlike that of the species previously named that it might almost be considered worthy of generic rank. However, the corolla, altogether unlike that of any other group of Rubiaceae, clearly indicates the generic position of this Peruvian tree.

Joosia Dielsiana is named for Dr. L. Diels, Director of the Botanical Museum of Berlin, to whom the writer is indebted for many courtesies, and particularly for the loan of many hundreds of tropical American Rubiaceae whose study has proved to be a fascinating task.

Ladenbergia Ulei, sp. nov.—Frutex vel arbor 2–8-metralis, ramulis crassis subteretibus glabris; stipulae subpersistentes late ovatae acutae vel acuminatae fere 2 cm. longae crassae glabrae; folia magna petiolata subcoriacea, petiolo crasso 2.5–3.5 cm. longo glabro; lamina obovata vel oblanceolato-oblonga 18–25 cm. longa 7.5–12 cm. lata acuminata basi acuta, supra in sicco fusca glabra vel primo praesertim ad costam sparse adpresse setuloso-pilosula, costa nervisque vix elevatis, subtus pallidior brunnescens primo minutissime puberula sed cito glabrata, costa gracili elevata, nervis lateralibus utroque latere c. 11 angulo latiusculo adscendentibus leviter curvis prominentibus breviter ante marginem junctis, nervulis inconspicuis vix prominulis reticulatis; inflorescentia terminalis anguste decussato-paniculata breviter pedunculata c. 17 cm. longa et 8 cm. lata, rhachi crassa glabrata, ramis primariis brevibus subteretibus sparse ramosis, ramulis plerumque trifloris, floribus sessilibus vel brevissime crasse pedicellatis, bracteis 4–5 mm. longis persistentibus latissime ovatis obtusis vel acutis alte connatis dense adpresso-pilosulis; hypanthium 5–7 mm. longum clavato-cylindraceum densissime adpresso-pilosum, calyce 5 mm. longo late campanulato dense adpresso-pilosulo truncato et remote minute dentato, dentibus acutis; corolla alba extus densissime fulvo-sericea, tubo crasso 3 cm. longo vel paullo ultra supra paullo dilatato et fauce 5–6 mm. lato, lobis oblongis acutiusculis 2–2.5 cm. longis intus dense minutissime puberulis.—Peru: Pampas de Ponasa, Dept. Loreto, March, 1903, *E. Ule 6765* (herb. Berol., type).

A relative of *Ladenbergia crassifolia* (Pavón) Standl., likewise a Peruvian species.

Limnosipanea parviflora, sp. nov.—Herba tenella annua erecta 12–20 cm. alta simplicicaulis supra dichotome pauciramosa, caulibus gracillimis teretibus strigosis, internodiis valde elongatis; folia parva membranacea breviter petiolata opposita vel media ternata, lamina ovata vel oblongo-ovata 3–6 mm. longa 2.5–4 mm.

lata acuta basi obtusa vel rotundata et in petiolum 1–2 mm. longum abrupte contracta trinervia sparse strigosa; flores ad apices ramulorum fere filiformium aggregati pauci arcte sessiles; hypanthium dense setoso-pilosum, calycis laciniis viridibus 1.5 mm. longis linearilanceolatis acuminatis erectis sparse strigosis; corolla infundibularis 5 mm. longa extus glabra, tubo gracili supra paullo dilatato, lobis brevibus obtusis vix 1 mm. longis.—Brazil: Prov. Minas Geraes, 1816–21, *Auguste de Saint-Hilaire B2141* (herb. Paris, type).

Distinct primarily in the minute flowers.

Limnosipanea Schomburgkii Hook. f. in Hook. Icon. *pl. 1040.* 1868; Schum. in Mart. Fl. Bras. 6, pt. 6: 254. 1889.

A considerable extension range is indicated by the following collections in the Stockholm herbarium: Brazil, State of Matto Grosso: Cuyabá, in arenosis apertis humidis in consortio *Porteranthera, Acisanthera,* etc., June, 1902, *G. O. A. Malme 1654.* Prope Morrinho de Santo Antonio, loco aperto humido parce graminoso, April, 1894, *Malme 1578.* The species may also be reported for the first time from Colombia: Llano de San Martín, Quebradita Tiramene, *Triana 3248 (2)* (herb. Paris).

Limnosipanea Spruceana Hook. f. in Benth. & Hook. Gen. Pl. 2: 53. 1873; Schum. in Mart. Fl. Bras. 6, pt. 6: 253. *pl. 123, f. 1.* 1889.

Of this apparently rare species Schumann lists only the original collection, *Spruce 677* from Santarem, Brazil, represented in the herbarium of Field Museum by a photograph; and *Pohl 3326* from Pirapora. The following collections therefore represent a substantial extension of range: Brazil, State of Matto Grosso: Aricá, prope Cuyabá, loco arenoso humido sat graminoso, June, 1894, *G. A. Malme 1662;* in ora subnuda paludis, May, 1903, *G. O. A. Malme 2260* (both in herb. Stockholm).

Loretoa, gen. nov.—Arbores altae glabrae; stipulae magnae intrapetiolares integrae persistentes; folia opposita magna petiolata coriacea integra plus minusve reticulata; flores actinomorphi majusculi pentameri sessiles vel breviter pedicellati in paniculam decussatam e cymis paucifloris compositam conflati; calyx cupularis breviter et inaequaliter 5–6-dentatus intus dense sericeus; corolla clavato-infundibularis breviter quinqueloba, lobis subrecurvis late rotundatis integris glabris aestivatione sinistrorsum contortis, tubo lato supra paullo dilatato prope insertionem staminum piloso; stamina 5 supra basin tubi inserta, filamentis gracilibus elongatis glabris, antheris linearibus inclusis basifixis; discus depresso-annularis; hypanthium obovoideum biloculare, ovulis numerosis placentae dissipimento tota longitudine adnatae peltatim affixis sursum imbricatis; stylus gracilis elongatus inclusus, stigmate bifido, lamellis 2 lanceolato-ovatis acutis.

Loretoa peruviana, sp. nov.—Arbor glabra 20-metralis, ramulis crassis subteretibus vel obtuse quadrangularibus; stipulae fere 3.5 cm. longae crassae fuscae obtusissimae vel acutiusculae; petioli crassi 2–2.5 cm. longi basi dilatati; lamina late elliptica vel subrotundata 15–18 cm. longa 12 cm. lata apice rotundata basi obtusissima vel rotundata coriacea in sicco fusco-brunnescens, costa venisque supra prominentibus, venulis vix prominulis, subtus concolor, costa crassiuscula elevata, nervis lateralibus utroque latere c. 8 gracilibus prominentibus angulo acutissimo adscendentibus leviter arcuatis prope marginem conjunctis, nervulis prominentibus arcte reticulatis; inflorescentia magna terminalis sessilis e basi trichotoma c. 25 cm. longa et aequilata vel latior, ramis crassis rigidis rectis angulo lato adscendentibus interdum subdivaricatis ultimis plus minusve compressis; bracteae persistentes oblongo-ovatae acutae vel acuminatae patentes c. 1 cm. longae, pedicellis bracteolatis, bracteolis bracteis conformibus sed multo minoribus; flos centralis sessilis vel rarius pedicellatus, lateralibus pedicellatis, pedicellis usque ad 1 cm. longis; calyx persistens c. 3 mm. altus et 7–10 mm. latus, intus dense sericeus, breviter inaequaliter dentatus, dentibus latissime triangularibus acutis vel obtusis; corolla subcoriacea fere 4 cm. longa extus glabra, tubo fere 3 cm. longo basi infima 6 mm. lato prope medium 12 mm. lato, lobis late ovato-rotundatis 8 mm. longis; stamina 6 mm. supra basin tubi inserta, filamentis 1 cm. longis glabris, antheris linearibus 8 mm. longis; stylus 12 mm. longus et ultra, lamellis 2 mm. longis; hypanthium obovoideum basi acutum vel attenuatum 4–5 mm. longum.—Peru: Dept. Loreto, Florida, Río Putumayo, at mouth of Río Zubineta, alt. 200 meters, in forest, March–April, 1931, *G. Klug 2022* (herb. Field Mus. No. 641,369, type).

Vernacular name, "meta guais." Corolla "rose-garnet." The collector states that the fruit is edible, which would imply that it was fleshy and juicy. I am of the opinion, however, after study of the ovaries, that the fruit must be capsular. Certainly the ovules appear to be imbricate and apparently winged, and winged seeds, of course, would not be found in a baccate fruit.

The writer takes no particular pride in describing this tree as a new genus, especially because fruit, which would establish its position more definitely, is not available. If, as is believed, the fruit at maturity is a capsule, the plant must belong to the tribe *Cinchoneae.* There it does not have any very close relatives unless it be *Ferdinandusa,* which the Peruvian tree does resemble greatly in general appearance, as well as in some of the structural details. *Loretoa,* however, is altogether distinct from *Ferdinandusa* in its equal stamens with included and basifixed anthers.

Macrocnemum latilimbum Standl. Field Mus. Bot. 8: 154. 1930.

Colombia: Prov. Soto, 900 meters, February, 1846–52, *L. Schlim 1073* (herb. Paris). A shrub with pink flowers.

Manettia sublanata Wernham, Gen. Manettia 21. 1919. *M. ignita* (Vell.) Schum. var. *incana* Schum. in Mart. Fl. Bras. 6, pt. 6: 171. 1889.

With his description Wernham cites only the type, *Hassler 8841*, from Cordillera de Villa Rica, Paraguay, a sheet of which I have seen in the Delessert Herbarium. The following collections in the same herbarium evidently are conspecific:

Paraguay: In regione Cerros de Tobaty, September, 1900, *Hassler 6246*. Villa Rica, sur le bord des ruisseaux, February 1876, *Balansa 2135* (type collection of var. *incana*); flowers rose-colored.

Manettia Wernhamiana, sp. nov.—Herba (?) volubilis fere omnino glabra, caulibus crassis teretibus ferrugineis glabris, internodiis elongatis; stipulae persistentes in vaginam incrassatam 4–5 mm. longam connatae, vagina utroque latere lobo lineari-subulato erecto 5–6 mm. longo onusta; folia breviter petiolata opposita subcoriacea, petiolo crasso 3–7 mm. longo; lamina elliptica vel oblongo-elliptica 4.5–10 cm. longa 2.5–5 cm. lata abrupte cuspidato-acuminata, acumine fere 1 cm. longo obtuso, basi acutiuscula vel subobtusa et abrupte contracta, anguste stramineo-marginata, glabra, supra in sicco olivacea sublucida, costa venisque non elevatis, subtus paullo pallidior, costa gracillima elevata, nervis lateralibus utroque latere 6–7 gracilibus prominulis angulo angustissimo adscendentibus, nervulis obsoletis; flores cymoso-capitati, capitulis dense multifloris 2.5 cm. diam., pedunculis simplicibus axillaribus crassis glabris 1.5–2.5 cm. longis, floribus sessilibus vel subsessilibus; hypanthium obovoideum 2.5 mm. longum glabrum; calyx viridis in sinubus inter lobos parce breviter setuloso-ciliatus, aliter glaber, fere ad basin 4-fidus, lobis 4–7 mm. longis inaequalibus oblongis vel spathulato-oblongis obtusis submarginatis patentibus; corolla (perfecta non visa) parva in alabastro c. 4 mm. longa ad medium 4-fida extus glabra in fauce dense albido-barbata.—Brazil: Bahia, in 1832, *Blanchet 809* (herb. Delessert, type).

The plant must be related to *Manettia capitata* Wernham and *M. Miersiana* Wernham, neither of which I have seen. Those are the only species of the genus which are described as having capitate inflorescence. Both are described as being smaller in all their parts, and *M. capitata*, according to Wernham, is "delicatula," a term that certainly does not apply to *M. Wernhamiana*, which is one of the most robust plants of the whole genus.

Mitracarpus eritrichoides, sp. nov.—Herba pusilla ut videtur perennis et prostrata ramosa, ramis gracilibus 2–4 cm. longis dense pilis rigidis albis hispidis, internodiis foliis longioribus vel saepe

brevioribus; folia brevissime petiolata oblonga vel oblongo-elliptica 4–6 mm. longa acuta basi acuta vel subobtusa utrinque densissime pilis longis patentibus albis hispida; flores dense capitati, capitulis globosis dense multifloris 4–7 mm. diam. terminalibus vel 1–2 quoque in axillis supremis insertis; hypanthium subglobosum albido-strigosum, sepalis 4 erectis lanceolato-linearibus attenuatis 1.5–2 mm. longis strigillosis ad costam viridibus albido-marginatis; capsula bilocularis supra medium circumscissa 1.2 mm. lata.—Brazil: Sources du Paraguay (envir. de Diamantino), Prov. de Mattogrosso, December, 1844, *H. A. Weddell 3090* (herb. Paris, type).

The plant is clearly referable to *Mitracarpus*, but in habit and especially in quality of pubescence it is altogether unlike any other South American representative of the genus.

Morinda panamensis Seem. Bot. Voy. Herald 136. 1854.

A Central American species, extending to Colombia, but not recorded previously from Mexico.

Mexico: In shady places, Santa Domitila, Tabasco, April, 1890, *J. N. Rovirosa 779* (herb. Kew.); vernacular name, "palo de peine."

Oldenlandia filicaulis Schum. in Mart. Fl. Bras. 6, pt. 6: 271. *pl. 127, f. 2.* 1899.

Brazil: State of Bahia, near Remanso, December, 1906, *E. Ule 7419* (herb. Delessert).

Oldenlandia tenuis Schum. in Mart. Fl. Bras. 6, pt. 6: 273. 1889.

Brazil: Surumu, Rio Branco, Serra do Mel, September, 1909, *E. Ule 8327* (herb. Delessert); flowers white.

Palicourea aeneofusca (Muell. Arg.), comb. nov. *Psychotria aeneofusca* Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 253. 1881.

Palicourea rigida HBK. Nov. Gen. & Sp. 3: 370. 1820.

In the enumeration of the *Rubiaceae of Colombia* (Field Mus. Bot. 7: 149. 1930), only one collection of this species, from Santa Marta, was reported, but another has been noted more recently: Colombia: Ocaña, *J. Engel* (herb. Leningrad).

Palicourea aphthosa, sp. nov.—Frutex 2-metralis, ramulis vetustioribus teretibus crassis ochraceis, novellis fuscis vel fusco-ferrugineis densissime et minutissime ochraceo-pilosulis, internodiis brevibus; stipulae 3–4 mm. longae persistentes alte connatae ad medium bilobae, lobis late triangularibus obtusis fuscescentibus glabratis; folia breviter petiolata opposita coriacea, petiolo crasso 4–8 mm. longo glabro; lamina lanceolato-oblonga prope medium latissima 5.5–8.5 cm. longa 1.5–2.8 cm. lata breviter acuminata, acumine obtusiusculo, basi acuta, anguste marginata, supra in sicco fusco-brunnescens, primo prope costam sparse minute puberula sed cito glabrata, costa venisque non elevatis, sublucida, subtus palli-

dior, brunnescens, glabra, costa gracili elevata, nervis lateralibus utroque latere c. 17 gracilibus prominentibus arcuatis angulo lato adscendentibus juxta marginem conjunctis, nervulis prominulis arcte reticulatis; inflorescentia terminalis sessilis vel pedunculata, saepe prope basin foliaceo-bracteata, thyrsoideo-paniculata, dense multiflora, 4–7 cm. longa, 3–4 cm. lata, basi trichotoma, supra plerumque oppositiramosa, ramis crassis rigidis adscendentibus saepe angulatis densissime minute ochraceo-puberulis, bracteis plerumque basi ramorum insertis ovato-triangularibus vel subulatis rigidis glabratis usque ad 3 mm. longis acutis vel acuminatis patentibus, floribus arcte sessilibus in cymulas dense multifloras dispositis; hypanthium late cylindraceum vix 1 mm. longum glabratum, calyce lato subaequilongo remote acuteque 5-denticulato, denticulis acutis glabris vel glabratis; corolla lutea in alabastro 5–6 mm. longa clavata glabra vel glabrata, basi loborum 5-verrucosa, tubo crasso basi valde incrassato supra dilatato, lobis 5 ovali-ovatis obtusis tubo paullo brevioribus.—Peru: Mountains southwest of Monzón, Prov. Huamalies, Dept. Huánuco, alt. 2,500–2,900 meters, July 13, 1903, *A. Weberbauer 3401* (herb. Berol., type).

"Flowers citron-yellow." A fairly well-marked species, noteworthy for the very dense and minute, pale, dirty pubescence of the branches, and for the wart-like projections at the base of the corolla lobes.

Palicourea aragmatophylla Schum. & Krause, Bot. Jahrb. 40: 332. 1908.

Ecuador: Villonaco, November, 1881, *Poortmann 77* (herb. Paris); a shrub 3–5 meters high; flowers greenish blue.

Palicourea barraensis (Muell. Arg.), comb. nov. *Psychotria barraensis* Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 254. 1881.

Palicourea charianthema Standl. Field Mus. Bot. 8: 226. 1930.

Two additional collections of this species may now be reported: Peru: Iquitos, Dept. Loreto, 120 meters, a shrub in forest, October 11, 1929, *Williams 3678*. Paraíso, Alto Río Itaya, Dept. Loreto, 145 meters, October 1, 1929, a common shrub, *Williams 3302*.

Palicourea stenostachys Krause, Bot. Jahrb. 40: 340. 1908.

Only the type collection of this Peruvian species has been known heretofore, but three recent collections may now be reported. The species is represented in the herbarium of Field Museum by the following material: Peru: Open thickets near Moyobamba, Dept. Loreto, 900 meters, *Weberbauer 4474* (photo. and fragm. of type from herb. Berol.). Tarapoto, Dept. San Martín, 750 meters, a shrub, *Williams 5980*. Lamas, near Tarapoto, 840 meters, a small

shrub, *Williams 6388*. San Roque, Dept. San Martín, a shrub in open dry loam, 1,350–1,500 meters, *Williams 7276*.

Palicourea chrysotricha (Zahlbr.), comb. nov. *Psychotria chrysotricha* Zahlbr. Ann. Naturh. Hofmus. Wien 7: 1. 1892.

Palicourea cymosa (R. & P.), comb. nov. *Psychotria cymosa* R. & P. Fl. 2: 59. *pl. 206, f. b.* 1799.

Palicourea paraensis (Muell. Arg.), comb. nov. *Psychotria paraensis* Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 245. 1881.

Palicourea decipiens (Muell. Arg.), comb. nov. *Psychotria decipiens* Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 241. 1881.

Palicourea grandifolia (Willd.), comb. nov. *Psychotria grandifolia* Willd. apud Roem. & Schult. Syst. 5: 190. 1819.

Palicourea polyodonta (Muell. Arg.), comb. nov. *Psychotria polyodonta* Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 236. 1881.

Palicourea cornifolia Standl. Field Mus. Bot. 7: 318. 1931. Bolivia: Incachaca, Prov. Chapare, Dept. Cochabamba, 2,200 meters, in forest, January, 1929, *Steinbach 8908* (herb. Stockholm).

Palicourea fastigiata HBK.—A species common in many parts of South America, but apparently unknown previously in Central America. Apparently it has not been seen by recent collectors in the Canal Zone region, although found there many years ago. Panama: Lion Hill Station, in swamps, May, 1862, *Sutton Hayes 667* (herb. Paris). A shrub of 2.5–3.5 meters; flowers reddish yellow.

Palicourea Herzogii, sp. nov.—Frutex ut videtur dense ramosus ramulis subteretibus laevibus glabris fusco-brunneis, internodiis brevibus; stipulae persistentes in vaginam incrassatam 1 mm. longam subtruncatam connatae, vagina in lobos 4 erectos rigidos anguste triangulares obtusiusculos 1.5–2 mm. longos connatae; folia parva breviter petiolata coriacea, petiolo crassiusculo glabro 4–6 mm. longo; lamina saepe complicata oblongo-ovata vel elliptico-oblonga 4.5–7.5 cm. longa 2–2.8 cm. lata versus apicem acutum paullo angustata, basi acuta, supra in sicco luteovirens, costa prominente, venis prominulis, glabra, subtus paullo pallidior, glabra, costa crassiuscula elevata, nervis lateralibus utroque latere c. 11 gracilibus prominentibus angulo latiusculo adscendentibus arcuatis marginem fere attingentibus, nervulis prominulis arctissime reticulatis; inflorescentia terminalis parva 2.5–3.5 cm. longe pedunculata erecta dense cymoso-corymbosa multiflora 2–3 cm. lata et aequilonga compacta, ramis brevibus crassis glabris vel sparse minute hirtellis, floribus sessilibus vel breviter crasse pedicellatis, bracteis minutis; hypanthium glabrum turbinatum vix 1 mm. longum, calyce parvo obtuse dentato c. 0.6 mm. longo; corolla aurea 9–10 mm. longa tubulosa basi paullo dilatata, tubo crasso cylindraceo supra fere 2

mm. lato extus ubique densissime pilis longiusculis crassiusculis patentibus villoso et quasi tuberculato, lobis brevibus erectis ovali-ovatis c. 1 mm. longis.—Bolivia: Tres Cruces, Cordillera de Santa Cruz, alt. 1,500 meters, February, 1911, *Th. Herzog 1563* (herb. Stockholm, type).

The collection has been reported by Dr. Herzog as *Palicourea rigida* HBK., "forma parvifolia," the determination made by Wernham. However, the plant represented is not at all closely related to that well-known species. It is well distinct from any of the several other species recorded from Bolivia, nor have I been able to refer it to any described from neighboring regions, although it has no particularly pronounced characters. The corolla characters are the most distinctive.

Palicourea hispidula, sp. nov.—Ramuli graciles teretes glabri fusco-ferruginei, internodiis brevibus plerumque circa 1 cm. longis; stipulae persistentes in vaginam 1–1.5 mm. longam hispidulam connatae, vagina in lobos 4 lineari-subulatos 4–5 mm. longos hispidulos vel glabratos erectos approximatos desinente; folia parva breviter petiolata opposita coriacea, petiolo crasso 2–5 mm. longo sparse hispidulo vel glabrato; lamina lanceolato-oblonga prope medium latissima 4.5–9 cm. longa 1.5–2.3 cm. lata longiuscule sensim acuminata basi acuta, acumine angusto attenuato-acuto, supra in sicco fusco-olivacea glabra opaca, costa venisque non elevatis, subtus pallidior, sparse praesertim ad venas hispidula vel serius glabrata, costa gracili elevata, nervis lateralibus utroque latere c. 10, aliis paullo minus conspicuis interdum interjectis, prominulis gracilibus angulo lato saepe fere recto adscendentibus arcuatis marginem fere attingentibus, nervulis prominulis laxe reticulatis; inflorescentia terminalis cymoso-corymbosa graciliter 1 cm. longe pedunculata laxe pauciflora foliis subaequalis basi trichotoma, ramis gracillimis fuscis ut pedunculis glabris, floribus in cymulas trifloras dispositis vel interdum subumbellatis, bracteis minutis lanceolatis hispidulis saepe supra axillas insertis, pedicellis gracilibus rectis plerumque 5–8 mm. longis; hypanthium late obovoideum cum pedicello articulatum 1 mm. longum glabrum vel glabratum, calyce late campanulato 1.5 mm. longo sparse minute hispidulo breviter denticulato, denticulis distantibus triangularibus erectis acutis; corolla extus glabra vel in alabastro sparse minute hispidula, tubo gracili 9–10 mm. longo basi paullo incrassato subcurvo supra paullo dilatato prope medium 1.5 mm. lato, lobis ovato-triangularibus 2.5 mm. longis suberectis acutiusculis intus dense pulverulaceo-puberulis; antherae oblongo-lineares semiexsertae.—Brazil: "Environs de Rio de Janeiro et d'Ouro Preto," 1883–84, *A. Glaziou 14900* (herb. Kew., type).

It is difficult to determine the closest relatives of the present plant, but it may be recognized best by the sparse, coarse, harsh pubescence, most of which disappears in age.

Palicourea Klugii, sp. nov.—Arbor 5-metralis ut videtur omnino glabra, ramulis crassiusculis fuscis subteretibus; stipulae erectae subadpressae 6–8 mm. longae ad medium bilobae, lobis late semiovatis obtusissimis; folia breviter petiolata maxima crasse coriacea in sicco fusca, petiolo crasso 2 cm. longo; lamina lanceolato-oblonga 24–35 cm. longa 8–12 cm. lata breviter acute acuminata, basi acuta et obliqua supra opaca vel sublucida, costa venisque prominulis, subtus fere concolor, costa gracili elevata, nervis lateralibus utroque latere c. 14 gracilibus prominentibus angulo fere recto divaricatis, nervulis obscuris vel obsoletis; inflorescentia terminalis 2.5 cm. longe pedunculata erecta globoso-thyrsoidea dense multiflora c. 6 cm. longa et aequilata, ramis patentibus basi nudis obtuse angulatis brevibus, bracteis obsoletis, pedicellis gracilibus plerumque 1–1.5 cm. longis; hypanthium cylindraceo-obovoideum 1.5 mm. longum; calyx fere obsoletus annuliformis obscure denticulatus; discus elevatus calyce bene longior; corolla lilacina lineari-tubulosa extus glabra, tubo gracili usque ad 14 mm. longo supra interdum paullo dilatato et fauce 2.5–3 mm. lato, lobis oblongo-linearibus 3–4 mm. longis adscendentibus obtusis; antherae lineares breviter exsertae 4–5 mm. longae.—Peru: Dept. Loreto, Florida, Río Putumayo, at mouth of Río Zubineta, alt. 200 meters, in forest, March–April, 1931, *G. Klug 1977* (herb. Field Mus. No. 641,384, type).

The plant has no especially distinctive characters within the genus, but it is noteworthy for its unusually large leaves, small, condensed, thyrsiform inflorescence, and complete lack of pubescence.

The collector gives the vernacular name as "parinari," and states that the fruit is edible. I suspect that the name is erroneous, since it is given usually to certain trees of the family Rosaceae.

Palicourea lachnantha, sp. nov.—Arbuscula 4-metralis, ramulis teretibus fuscis glabris vel glabratis; stipulae 8–10 mm. longae puberulae fere ad basin bifidae, laciniis lineari-lanceolatis attenuatis erectis; folia opposita breviter petiolata firme membranacea in sicco fusca, petiolo gracili c. 1.5 cm. longo puberulo; lamina lanceolato-oblonga 22–25 cm. longa 7–8 cm. lata longiuscule acuminata basin versus attenuata et plus minusve decurrens, supra sublucida ad nervos puberula aliter glabra costa venisque prominulis, subtus fere concolor praesertim ad nervos breviter patenti-pilosa, aliter glabra vel glabrata, costa gracili elevata, nervis lateralibus utroque latere c. 15 gracillimis prominentibus arcuatis, nervulis prominulis inconspicuis laxe reticulatis; inflorescentia terminalis parva cymosa 2 cm. longe pedunculata, dense multiflora, c. 5 cm. longa et 7 cm. lata, ramis brevibus dense pilosis divaricatis vel adscendentibus basi non bracteatis, bracteis lanceolatis fuscis longe attenuatis usque ad 14 mm. longis ciliatis, floribus sessilibus vel breviter pedicellatis confertis; hypanthium villosum, calyce profunde lobato, laciniis lineari-lanceolatis attenuatis villosis usque ad 3 mm. longis;

corolla tubulosa c. 2.5 cm. longa extus densiuscule pilis longissimis plerumque 3–4 mm. longis patentibus villosa, tubo crassiusculo supra paullo dilatato fauce 4 mm. lato, lobis angustis 3–4 mm. longis.—Peru: Dept. Loreto, Florida, Río Putumayo, at mouth of Río Zubineta, alt. 200 meters, March–April, 1931, *G. Klug 1973* (herb. Field Mus., type).

"Corolla red-violet." The species may be recognized immediately by the large corolla and the extraordinarily long pubescence with which it is covered.

Palicourea laniflora, sp. nov.—Praeter inflorescentiam omnino glabra, ramulis crassis subteretibus in sicco nigris; stipulae breves profunde bilobae, lobis 2.5–3 mm. longis apice rotundatis plus minusve induratis erectis; folia magna petiolata crasse membranacea, petiolo crassiusculo 3–4 cm. longo; lamina elliptico-oblonga 16–29 cm. longa 5.5–8.5 cm. lata acuta vel breviter acuminata, acumine angusto acute attenuato, basi acuta, in sicco fusco-olivacea, minutissime sparse papillosa, supra vix lucida, costa nervisque prominulis, subtus concolor, costa gracili elevata, nervis lateralibus utroque latere c. 13 gracillimis prominentibus angulo fere recto divergentibus in marginem desinentibus, venulis prominulis laxe reticulatis; inflorescentia terminalis erecta 10 cm. longe pedunculata thyrsoideo-paniculata c. 8 cm. longa et fere aequilata dense multiflora, ramis compressis vel angulatis sparse minute puberulis, ramis basi bracteatis, floribus cymosis dense congestis, pedicellis crassis suberectis usque ad 3 mm. longis puberulis, bracteis minutis late ovatis acuminatis puberulis; hypanthium late cylindraceum 1–1.5 mm. longum dense puberulum, calyce cupulari truncato hypanthio latiore vix 0.8 mm. alto; corolla extus dense pilis longis mollibus villosa fere 3 cm. longa, tubo crasso basi 4–5 mm. lato ad faucem 5–6 mm. lato, lobis late ovatis obtusis 3–4 mm. longis erectis.—Brazil: Rio Negro, "*Herb. Lusit.*" (herb. Paris, type).

This *Palicourea* of the Amazonian region is a relative of *P. lanata* (Muell. Arg.) Standl. of the same general region. *P. lanata* and its related species, as listed by Mueller in the *Flora Brasiliensis,* all differ in having much smaller corollas.

Palicourea lasiantha Krause, Bot. Jahrb. 40: 341. 1908.

The species was described from Peru, and occurs also in Bolivia. It may now be reported from Colombia: Río Putumayo, on the Peruvian border, in forest, *Klug 1628.* A tree 6 meters high; flowers lilac.

Palicourea ovalifolia (Rusby) Standl. Field Mus. Bot. 7: 323. 1931. *Psychotria ovalifolia* Rusby, Bull. N. Y. Bot. Gard. 4: 371. 1907.

Colombia: Umbría, Comisaría del Putumayo, 325 meters, in forest, *Klug 1762.* A shrub 2 meters high; flowers yellow and red.

Heretofore the species has been known only from Bolivia, but now that its range has been extended to Colombia, it may be expected confidently in Amazonian Peru. It is not improbable that an earlier name may be found for this species, but I have been unable so far to discover one.

Palicourea Mansoana (Muell. Arg.), comb. nov. *Psychotria Mansoana* Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 243. *pl. 34.* 1881.

Several collections of this rare species are represented in the Stockholm herbarium: Brazil (State of Matto Grosso): Santa Anna da Chapada, in ripa rivi in silva, September, 1902, *G. O. A. Malme 2418.* Santa Anna da Chapada, June, 1903, *Malme 3484, 3484a.*

Palicourea martinicensis, sp. nov.—Frutex omnino glaber ut videtur dense ramosus, ramis crassis teretibus olivaceis, internodiis brevibus; stipulae persistentes erectae in vaginam truncatam subincrassatam 2 mm. longam connatae, vagina in lobos 4 e basi triangulari subulato-attenuatos 2.5–3 mm. longos desinente; folia parva petiolata opposita coriacea, petiolo crassiusculo 4–9 mm. longo; lamina elliptica vel late elliptica, rarius elliptico-oblonga, 4–7.5 cm. longa 1.7–4 cm. lata longe sensim acuminata, acumine longe attenuato acuto, basi acuta vel interdum obtusa et abrupte acute decurrens, supra in sicco fusco-flavescens, lucida, costa venisque prominulis et conspicuis, subtus concolor, costa gracili elevata, nervis lateralibus utroque latere c. 7 obliquis gracilibus elevatis angulo semirecto vel paullo latiore adscendentibus arcuatis marginem fere attingentibus, nervulis obsoletis; inflorescentia terminalis erecta c. 2 cm. longe pedunculata, pedunculo crasso, cymoso-fastigiata densissime pauci- vel multiflora 2.5–3 cm. longa et aequilata basi trichotoma, ramis brevibus crassis suberectis basi bracteatis, bracteis subpersistentibus viridescentibus lineari-attenuatis suberectis plerumque 5–9 mm. longis, floribus cymoso-congestis sessilibus vel usque ad 6 mm. longe pedicellatis, pedicellis rectis supra incrassatis; hypanthium turbinatum 2–2.5 mm. longum basi acutum, calyce 5-partito, laciniis lineari-attenuatis vel lanceolato-oblongis 4–5 mm. longis erectis persistentibus; corolla perfecte evoluta non visa, in alabastro apice late obtusa extus glabra; bacca late ovoideo-globosa c. 8 mm. longa et aequilata apice breviter contracta, pyrenis 2 dorso crasse costatis, costis transverse rugosis.—Martinique: Piton de l'Alba, March, 1869, *L. Hahn 802* (herb. Paris, type; duplicate in herb. Kew.). Casa Pilote, April, 1870, *Hahn 198* (herb. Paris).

While there is some uncertainty regarding the generic position of the plant, there is little doubt that it is best referred to *Palicourea.* From all other West Indian species of the genus *Palicourea* it is conspicuously distinct in the narrow and distinctively elongate calyx lobes.

Palicourea punoensis, sp. nov.—Frutex, ramulis crassiusculis, vetustioribus fusco-ferrugineis subteretibus, novellis subacute tetragonis glabris, internodiiis plerumque 2.5–4.5 cm. longis; stipulae persistentes glabrae erectae alte connatae 3–4 mm. longae profunde bilobae, lobis triangularibus acutis remotis vel approximatis, vagina interdum ad basin sparse hispidula; folia mediocria brevissime petiolata subcoriacea opposita, petiolo crasso glabro 3–4 mm. longo; lamina anguste lanceolato-oblonga 8–12.5 cm. longa 2.5–3.5 cm. lata longissime sensim attenuato-acuminata, basi acuta vel basin versus longe attenuata, supra in sicco brunnescens, glabra, costa venisque vix elevatis, anguste marginata, subtus pallidior, sparse minute fulvo-pilosula, ad costam gracilem elevatam hispidula, nervis lateralibus utroque latere c. 17 obliquis gracilibus prominentibus angulo lato adscendentibus prope marginem in nervum subdistinctum conjunctis, nervulis vix prominulis laxe reticulatis; inflorescentia terminalis thyrsoidea 2–4.5 cm. longe pedunculata, pedunculo recto densiuscule hispidulo, panicula interdum basi foliaceo-bracteata densissime multiflora 2.5–4 cm. longa 3–4 cm. lata basi trichotoma, ramis brevibus plerumque oppositis crassis dense hispidulis, bracteis glabris vel glabratis oblongis obtusis plerumque 2–3 mm. longis persistentibus ad basin ramorum insertis, floribus parvis in cymulas densas confertas dispositis sessilibus vel subsessilibus; hypanthium late obovoideum glabrum vel glabratum vix 0.5 mm. longum, calyce late campanulato glabrato breviter dentato, dentibus latissime triangularibus vel late ovatis obtusis vel acutiusculis; corolla viridescens extus glabra vel sparse hispidula in alabastro apice late obtusa, 5–6 mm. longa, tubo basi incrassato supra paullo dilatato, lobis ovali-ovatis obtusis tubo duplo brevioribus.—Peru: Between Tambo Yuncacoya and Tambo Cachicachi, on the road from Sandía to Chunchusmoyo, Dept. Puno, alt. 1,800–2,200 meters, June 8, 1902, *A. Weberbauer 1143* (herb. Berol., type).

A member of the group of *Palicourea macrobotrys* (R. & P.) R. & S., but that species differs constantly in its thin leaves, elongate and lax inflorescence, and much larger corolla.

Palicourea sclerophylla (Muell. Arg.), comb. nov. *Psychotria sclerophylla* Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 239. 1881.

Palicourea toensis (Britt. & Wils.), comb. nov. *Psychotria toensis* Britt. & Wils. Mem. Torrey Club 16: 113. 1920. *Palicourea purpurascens* Urban, Symb. Antill. 9: 167. 1923.

Cuba: Camp La Gloria, south of Sierra Moa, Oriente, Cuba, *Shafer 8141.* Minas de Iberia, in cacumine Sierra Maestra ad Taco Bay, 800 meters, *Ekman 3779,* type collection of *Palicourea purpurascens.*

I have not seen *Shafer 4009,* the type collection of *Psychotria toensis,* but *Shafer 8141* was determined by Britton and Wilson as the same species. The latter collection is clearly conspecific with

Ekman 3779. The plant is referable to *Palicourea* rather than *Psychotria*, if the two genera are to be separated.

Palicourea Toroi Standl. Field Mus. Bot. 7: 150. 1930.

Colombia: Prov. Barbacoas, *Triana 1716* (herb. Paris). Between Tuquerres and Barbacoas, Prov. Popayán, 900 meters, *Triana 1727* (P).

Heretofore only the type specimen of this species has been known.

Palicourea triphylla DC. Prodr. 4: 526. 1830.

Although the species is common and widely distributed in other regions, only two collections have been listed from Colombia. The following represents an extension of range: Colombia: Forests of Fusagasugá, Prov. Bogotá, 1,800 meters, *Linden 823* (herb. Paris). The species grows ordinarily at or near sea level, hence the locality data are open to question.

Palicourea virens (Poepp. & Endl.), comb. nov. *Psychotria virens* Poepp. & Endl. Nov. Gen. & Sp. 3: 33. 1845.

I have seen no authentic material of this species, but the collection listed below seems to agree well with the descriptions. The corolla of the specimen cited is merely obscurely puberulent, rather than hirtellous, as described, but I find no other differences. The type was collected at Ega.

Brazil: In silvis non inundatis circa Villa Braga prope cataractum infimum fluminis Tapajoz, State of Pará, October, 1922, *A. Ducke 18847* (herb. Berol.); a tall shrub, the inflorescences yellowish orange; corolla white.

Posoqueria Mutisii, sp. nov.—Frutex vel arbuscula praeter inflorescentiam omnino glabra, ramulis teretibus crassiusculis, internodiis ut videtur elongatis; folia magna breviter petiolata subcoriacea, petiolo crasso 2 cm. longo; lamina lanceolato-oblonga vel anguste lanceolato-oblonga 18–25 cm. longa 5.5–7.5 cm. lata conspicue incrassato-marginata apice subspinoso-acuminata vel versus apicem longe sensim attenuata, basi late obtusa vel acuta, supra in sicco laete viridis costa prominente, nervis prominulis, subtus pallida, costa crassiuscula elevata, nervis ut venulis obsoletis; flores cymosi terminales, cymis circa trifloris vel multifloris, pedicellis crassis 6–10 mm. longis sparse hirtellis vel glabratis; hypanthium obconicum 2.5 mm. longum sparse hirtellum vel glabratum; calyx 2.5 mm. longus fere ad basin lobatus, lobis triangularibus acutis ciliolatis viridibus; corolla extus glabra, tubo gracillimo 13–14 cm. longo 1.5 mm. lato, lobis patentibus anguste oblongis obtusis 2–2.5 cm. longis.—Colombia: Without locality, *José Celestino Mutis 2257* (U. S. Nat. Herb., No. 1,560,305, type), *4947*.

Resembling *P. longiflora* Aubl., which has much longer flowers and broader calyx lobes.

Psychotria apodocephala, sp. nov.—Frutex 1.5–2-metralis, trunco 2.5–5 cm. diam., ramulis gracillimis rigidis teretibus viridibus glabris, interdum compressis; stipulae persistentes in vaginam truncatam glabram 1.5 mm. longam connatae, vagina in setas 4 erectas 2–3 mm. longas desinente; folia opposita parva sessilia vel subsessilia rigide membranacea late ovato-elliptica vel oblongo-ovata 3–5.5 cm. longa 2–3 cm. lata abrupte longiuscule acuminata, acumine triangulari acuto attenuato, basi breviter cordata, in sicco luteo-viridis glabra, costa supra elevata, subtus fere concolor, costa arcte elevata gracili, nervis lateralibus utroque latere 5–6 gracillimis arcuatis marginem attingenibus angulo semirecto adscendentibus, nervulis vix prominulis laxe reticulatis; inflorescentia terminalis capitata pauciflora sessilis, bracteis parvis inconspicuis linearibus, floribus arcte sessilibus; hypanthium breve, calyce vix 0.8 mm. longo remote dentato, dentibus late triangularibus acutiusculis; corolla albida extus glabra vel sparsissime puberula 4 mm. longa, lobis 4 oblongis obtusis suberectis 1.5–2 mm. longis intus glabris; stamina inclusa, stylo breviter exserto.—Colombia: El Humbo, Department of Boyaca, alt. 900 meters, edge of forest, September 19, 1932, *A. E. Lawrance 442* (herb. Field Mus. No. 708,575, type).

A well-marked species, quite unlike any other known from Colombia; noteworthy for its small sessile inflorescences, and its small sessile leaves.

Psychotria arirambana, sp. nov.—Frutex parvus multiramosus, ramis gracilibus rigidis subteretibus puberulis, internodiis brevibus vel elongatis; vagina stipularis incrassata vix ultra 1 mm. longa, lobis brevissimis dentiformibus; folia parva brevissime petiolata coriacea, petiolo 1–2 mm. longo; lamina oblonga vel lanceolato-oblonga 2.5–4 cm. longa 9–15 mm. lata acuta basi late rotundata vel brevissime cordata glabra, supra olivacea lucida costa elevata, nervis prominulis, subtus paullo pallidior, costa gracili elevata, nervis lateralibus utroque latere c. 12 prominentibus arcuatis angulo semirecto adscendentibus marginem attingentibus, nervulis prominentibus arcte reticulatis; inflorescentia terminalis capitiformis subrecurva brevissime pedunculata densissime pauciflora c. 8 mm. lata, pedunculo puberulo, bracteis viridibus omnibus subaequilongis 4–5 mm. longis lanceolatis vel lanceolato-linearibus corollis longioribus glabris suberectis, floribus sessilibus; hypanthium breve glabrum, sepalis fere distinctis acutiusculis c. 0.6 mm. longis; corolla alba parce puberula in alabastro oblonga apice late rotundata c. 3 mm. longa.—Brazil: Campos do Ariramba, Rio Trombitas, civ. Pará, in fruticetis "campina-rana" prope flumen Jaramacarú, December 4, 1910, *A. Ducke 23100* (herb. Berol., type; fragment in herb. Field Mus.).

Somewhat suggestive of *Psychotria rubra* (Willd.) Muell. Arg., which, however, has much more elongate bracts and larger leaves that are acute at base.

Psychotria barbiflora DC. Prodr. 4: 509. 1830.

Brazil: Rio de Janeiro, Corcovado, October, 1874, *H. Mosén 2519* (herb. Stockholm). Pernambuco, in 1838, *Gardner* (herb. Kew.); a shrub 1.5 meters high. Natividade, in 1840, *Gardner 3227* (K); a shrub 1 meter high, in forest. Santa Cruz da Barra, Matto Grosso, in silvis primaevis, March, 1894, *Lindman A.3201* (S). Santa Anna da Chapada, Matto Grosso, May, 1903, *Malme* (S). Rio de Janeiro, Nitheroy, December, 1901, *Dusén 116* (S).

Psychotria Beyrichiana Muell. Arg. Flora 59: 542. 1876.

Brazil: Rio de Janeiro, *Ule 3719* (herb. Berol.; fragm. in herb. Field Mus.). Rio Negro, Prov. Minas Geraes, January, 1888, *J. T. de Moura 190* (herb. Berol.). Road between Monte Serrat and Ponte Maromba, Mount Itatiaya, Estação Biologica, 800–1,000 meters, *L. B. Smith 1426* (Gray herb.; fragm. in F). Caldas, Minas Geraes, in 1875, *Regnell III.1817* (herb. Stockholm, herb. Paris).

Psychotria boyacana, sp. nov.—Frutex 1.5–2-metralis, trunco 2.5–7 cm. diam., ramulis gracilibus dense breviter hispidulis; stipulae erectae in vaginam dense hispidulam 3 mm. longam connatae, vagina in lobos 4 hispidulos lineari-subulatos 4 mm. longos desinente; folia opposita mediocria breviter petiolata papyracea, petiolo crassiusculo 5–10 mm. longo hispidulo; lamina oblonga vel oblanceolato-oblonga 7–14 cm. longa 2.5–4 cm. lata subabrupte longissime attenuato-acuminata, acumine angustissimo 1.5–2 cm. longo longe sensim attenuato, basi obtusa vel acuta, supra in sicco viridis glabra, subtus paullo pallidior ubique sed ad venas densius hispidula, costa gracili elevata, nervis lateralibus utroque latere c. 11 arcuatis elevatis angulo latiusculo adscendentibus in marginem desinentibus, nervulis conspicue elevatis arcte reticulatis; inflorescentia terminalis e capitulis densis 3–4 racemose dispositis composita 2 cm. longe pedunculata erecta, rhachi dense pilosa, capitulis infimis breviter pedunculatis, pedunculis bracteis persistentibus viridibus ovatis usque ad 1 cm. longis villosis fulcratis, capitulis multifloris 8–10 mm. diam., bracteis viridibus rotundato-ovatis ad 8 mm. longis villosis acutis vel acuminatis involucratis; hypanthium breve dense villosum, calycis lobis linearibus erectis hypanthio duplo longioribus; corolla ochroleuca in alabastro obtusa dense villosa.—Colombia: La Chapón, Department of Boyaca, alt. 1,050 meters, edge of forest, July 14, 1932, *A. E. Lawrance 317* (herb. Field Mus. No. 708,579, type).

Conspicuous characters are the few, racemosely disposed, densely bracted heads, and the leaves, perfectly glabrous on the upper surface but densely yellowish-hispidulous beneath.

Psychotria brevicollis Muell. Arg. Flora 59: 548. 1876.

Brazil: Ponta Grossa, Paraná, in "Capão Grande," in silvula, 880 meters, *Dusén 8042.* Capão Grande, Paraná, April 9, 1909, *Dusén* (herb. Stockholm). Morretas, Paraná, *Dusén 4348* (S).

Rio Uruguay, Santa Catharina, *Dusén 17774* (S). Therezina, Paraná, 980 meters, *Dusén 11236* (S). Alexandra, Paraná, *Dusén 11481* (S). Prov. São Paulo, *Saint-Hilaire 1307* (herb. Kew.). Prov. Rio de Janeiro, *Vauthier 47* (herb. Paris). Nouvelle Fribourg, *Claussen* (P). Without locality, *Vauthier 96* (herb. Kew.). Colonia Ipuhy, in silva primaeva, Rio Grande do Sul, *Lindman A.1453* (S).—Paraguay: Pirapó, in silva primaeva, *Lindman A.1811* (S).

Psychotria calocardia, sp. nov.—Frutex parvus ramosus praeter inflorescentiam omnino glaber, ramulis gracilibus rigidis teretibus olivaceis, internodiis elongatis vulgo foliis longioribus; vagina stipularis vix 1 mm. longa persistens truncata, lobis minutis dentiformibus; folia parva sessilia coriacea anguste oblongo-triangularia 2.5–4 cm. longa 8–18 mm. lata longe sensimque acuminata basi breviter cordata, supra in sicco olivacea sublucida costa prominente, nervis ut venulis prominulis, subtus flavescentia costa gracili valde elevata, nervis lateralibus utroque latere c. 10 gracilibus prominentibus inferioribus approximatis superioribus magis distantibus in marginem desinentibus, nervulis prominentibus arcte reticulatis, costa interdum parce puberula; inflorescentia terminalis capituliformis erecta 13 mm. longe pedunculata, pedunculo puberulo recto, ramis brevissimis supra basin bracteatis, bracteis linearibus acutis 3–4 mm. longis suberectis, floribus paucis sessilibus; calyx remote brevissime dentatus; fructus subdidymo-globosus glaber 3.5 mm. latus, coccis late rotundatis dorso acutiuscule costatis.—Brazil: Faro, civ. Pará, in arenosis Campos do Chicodacá, August 21, 1907, *A. Ducke 23105* (herb. Berol., type; fragm. in herb. Field Mus.).

A relative of *Psychotria cuspidata* Willd., or at least of some of the forms referred to that species by Mueller in the *Flora Brasiliensis,* but conspicuously different in its sessile cordate leaves.

Psychotria capituliflora (Muell. Arg.), comb. nov. *Mapouria capituliflora* Muell. Arg. Flora 59: 495. 1876.

Brazil: Serra do Itatiaia, Mont Serrat, ad rivulum, 900 meters, October, 1902, *Dusén 2103* (herb. Stockholm).

Psychotria cephalantha (Muell. Arg.), comb. nov. *Mapouria cephalantha* Muell. Arg. Flora 59: 495. 1876.

Psychotria chaenotricha DC. Prodr. 4: 509. 1830.

Brazil: Aguas Novas, Rio de Janeiro, *John Miers 3859* (herb. Kew.).

Psychotria chlorotica Muell. Arg. var. **lanceolata** Muell. Arg. Flora 59: 542. 1876.

Brazil: Santa Rita do Passa Quatro, São Paulo, November, 1897, *Ernst Hemmendorff 37* (herb. Stockholm), *35* (S). Sra. de Itapirapuan, Matto Grosso, in silva primaeva, April, 1894, *C. A. M. Lindman A.3331* (S); flowers yellowish white. Alagoas, *Netto*

(herb. Paris). Prov. Goyaz, in 1840, *Gardner 3771* (herb. Kew.); shrub 1–1.5 meters high; flowers white.

Psychotria choriophylla Standl. Field Mus. Bot. 7: 89. 1930.

The species was based upon *Triana 3149* from Provincia de Buenaventura. The following specimen, although bearing a different number, is probably of the same collection: Colombia: El Guineo, near Buenaventura, Prov. Chocó, 10 meters, 1851–57, *J. Triana 1725* (herb. Paris).

Psychotria cincta Standl. Field Mus. Bot. 7: 90. 1930.

The species was based upon a single collection from Córdoba, Dagua Valley, Colombia. Apparently conspecific is the following: Colombia: Intendencia del Chocó, La Concepción, 15 km. east of Quibdó, 75 meters, April–May, 1931, *W. A. Archer 2001* (U. S. Nat. Herb.). The distinctive leaves may be as much as 20 cm. long and 10 cm. wide, and the slender stipule lobes up to 18 mm. The collector describes the plant as a slender shrub 1–3 meters high, with gray-green fruit.

Psychotria Cooperi Standl. Field Mus. Bot. 4. 296. 1929.

The species was described from the Chiriquí and Bocas del Toro regions of Panama. Recent exploration has disclosed its occurrence also in Colombia: La Concepción, Intendencia del Chocó, 15 km. east of Quibdó, 75 meters, April–May, 1931, *W. A. Archer 2079, 1937*. A bushy shrub 1–2 meters high; flowers white; fruit dark bluish black. Vernacular name, "amarga." A decoction of the plant is employed in domestic medicine as a remedy for rheumatism.

Psychotria cuspidata Willd. var. **compacta** Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 288. 1881.

Brazil: Prov. Espirito Santo, 1816–21, *Auguste de Saint-Hilaire 367* (herb. Paris), *363* (herb. Paris). Rio Purus, September, 1874, *J. W. H. Traill 411* (herb. Kew.); a low shrub; flowers white or yellowish. Rio Purus, upper Amazon, September, 1874, *Traill 413* (K); a shrub with yellowish white flowers. Lago Cerrado, Rio Juruá, October, 1874, *Traill 412* (K); a shrub with white flowers.

Psychotria Duckei, sp. nov.—Frutex 1–1.5 m. altus ramosus omnino glaber, ramis gracillimis flexuosis teretibus, novellis in sicco fuscis, vetustioribus ochraceis; stipulae persistentes, vagina brevissima, lobis lineari-attenuatis 6–7 mm. longis rigidis erectis; folia inter minoria breviter petiolata opposita crasse membranacea vel fere subcoriacea, petiolo vix 2 mm. longo; lamina lineari-lanceolata 6–9 cm. longa 6–12 mm. lata longissime anguste attenuata basi subobtusa vel longe attenuata, supra in sicco fusco-olivacea costa elevata nervis obsoletis, subtus pallida flavescens costa gracili

elevata, nervis lateralibus utroque latere c. 10 prominulis angulo angusto adscendentibus, nervulis prominulis laxe reticulatis; inflorescentia terminalis erecta cymoso-corymbosa sessilis et basi trichotoma vel pedunculata 2.5–6 cm. longa laxe multiflora, ramis brevibus vel elongatis, floribus sessilibus, bracteis basilaribus vel pro parte suprabasilaribus persistentibus lanceolatis vel oblongis acutis 3–5 mm. longis; fructus depresso-globosus 4–5 mm. latus; calyx subtruncatus.—Brazil: São Luiz do Maranhão ad urbem loco Anil silva secundaria, June 4, 1907, *A. Ducke 23102* (herb. Berol., type; fragm. in herb. Field Mus.).

An ally of the widely distributed *Psychotria capitata* Ruiz & Pavón, but immediately distinguishable from all forms of that species by the remarkably narrow leaves, whose form is approached by few species in the genus.

Psychotria educta, sp. nov.—Frutex 3-metralis, ramulis crassiusculis in sicco subcompressis fuscis glabris, internodiis brevibus; stipulae deciduae latissime ovatae vel ellipticae 2–2.5 cm. longae acutae vel acuminatae crassae fuscae sparse ferrugineo-villosulae petiolis aequales vel longiores; folia magna brevissime petiolata opposita chartacea, petiolo crasso 1–1.5 cm. longo interdum fere ad basin marginato; lamina oblanceolata, oblongo-oblanceolata vel rhombico-oblanceolata 23–33 cm. longa 7–10 cm. lata longe sensim acuminata, acumine attenuato acuto, basin versus longe sensim attenuata, supra in sicco cinereo-viridescens, glabra vel ad costam obscure minute puberula, costa venisque non elevatis, subtus ferruginea, primo sparse ferrugineo-villosula vel puberula, serius glabrata, costa gracili elevata, nervis lateralibus utroque latere c. 16 gracilibus prominentibus valde obliquis angulo semirecto vel saepe multo latiore adscendentibus plus minusve arcuatis prope marginem conjunctis nervulis obscuris laxe reticulatis; inflorescentia terminalis 3 cm. longe pedunculata laxe paniculata magna (perfecta non visa), ramis gracilibus plerumque verticillatis patentibus vel subreflexis ferrugineis sparse puberulis vel glabratis basi bracteatis, bracteis deciduis triangularibus acuminatis puberulis vel villosulis 1–3 mm. longis patentibus, floribus ad apices ramulorum umbellato-congestis, pedicellis crassiusculis minutissime puberulis vel glabratis plerumque 1–2 mm. longis; hypanthium obconicum 1 mm. longum obscure sparse villosulum vel glabratum, calyce late campanulato 1.2 mm. longo truncato remote et minute repando-denticulato; corolla ochroleuca extus glabra in alabastro apice obtusa 2.5 mm. longa, tubo obconico fauce non barbato, lobis 5 recurvis triangularibus acutis intus glabris; antherae lineari-oblongae 1.5 mm. longae subexsertae.—Peru: In upland forest at edge of stream, mouth of the Río Santiago, upper Río Marañón, alt. 160 meters, September, 1924, *G. Tessmann 4057* (herb. Berol., type).

Similar to the more northern *Psychotria grandis* Swartz, especially in the form of the stipules, but differing in the shape of the leaves and in calyx characters.

Psychotria Ernesti Krause, Verh. Bot. Ver. Brandenb. 50: 109. 1908.

The species, described from Brazil, has been known only from the type collection, but it may be reported now from Peru and Colombia. The following specimens have been examined:

Brazil: Marary Juruá, State of Amazonas, September, 1900, *Ule 5136;* photo. and fragm. of the type, from herb. Berol.—Peru: Fortaleza, Yurimaguas, Dept. Loreto, 155–210 meters, a shrub in forest, *Williams 4242, 4341.*—Colombia: Umbría, Comisaría del Putumayo, 325 meters, in forest, *Klug 1715.*

Psychotria flavens, nom. nov. *Mapouria xanthophylla* Muell. Arg. Flora 59: 496. 1876, non *P. xanthophylla* Muell. Arg. 1881.

Psychotria fulgens Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 257. 1881.

Brazil: Prov. Espirito Santo, 1816–21, *Auguste de Saint-Hilaire 333* (herb. Paris).

Psychotria Hartwegiana Standl. Field Mus. Bot. 7: 95. 1930.

Colombia: Forêts du versant du Tolima, Prov. Mariquita, 1,200–1,500 toises, January, 1843, *Linden 961* (herb. Paris); flowers orange. Prov. Barbacoas, 1,200 meters, *Triana 1678* (P). El Gallego, Cordillera de Quindío, Prov. Mariquita, 2,660 meters, *Triana 1677* (P). El Palmar, Quindío, *Goudot* (P); flowers orange.

Psychotria hospitalis Standl. Field Mus. Bot. 8: 199. 1930.

The specimen cited here agrees fairly well with the type, which was collected in the Department of Loreto, Peru. The species is an addition to the known flora of Colombia. Colombia: Umbría, Comisaría del Putumayo, 325 meters, in forest, *Klug 1842.*

Psychotria insolens, sp. nov.—Ramuli crassi, vetustioribus cortice crasso suberoso ochraceo obtuse tuberculato obtectis, novellis fuscis sparse puberulis et pilosulis, internodiis brevibus; stipulae breviter connatae bipartitae, lobis rotundato-ovatis incrassatis et serius suberosis, apice abrupte in aristam 5–6 mm. longam rigidam contractae; folia breviter petiolata majuscula opposita subcoriacea, petiolo gracili 1–2.5 cm. longo sparse minutissime puberulo vel glabrato; lamina oblonga vel elliptico-oblonga 11.5–21 cm. longa 4–7 cm. lata acuta vel subobtusa basi acuta, supra in sicco fusca, glabra, costa venisque prominentibus, subtus fere concolor, minutissime pallido-puncticulata, praesertim ad venas ferrugineo-puberula vel glabrata, costa gracili elevata, nervis lateralibus utroque latere c. 20 gracilibus prominentibus angulo latiusculo adscendentibus subarcuatis in marginem desinentibus, nervulis prominulis laxe reticulatis; inflorescentia terminalis corymbiformis 8–9 cm. longe pedunculata trichotoma c. 3.5 cm. longa et 6 cm. lata conspicue bracteata, bracteis basi ramorum sitis, basilaribus 2 anguste spathulatis obtusis 2 cm. longis, superioribus spathulatis 1–1.5 cm. longis

obtusis fuscis minute puberulis venosis basin versus attenuatis subsessilibus, floribus cymosis sessilibus vel breviter crasse pedicellatis interdum secundis, cymulis in capitula 3 composita obscure lobata congestis; hypanthium obovoideum 1.7 mm. longum minutissime puberulum; calyx late infundibuliformis 6–8 mm. longus sparse minute puberulus conspicue venosus in sicco fuscus, tubo 2.5–3 mm. lato in limbum 6–7 mm. latum brevissime inaequaliter 5-lobum expanso, lobis late rotundatis; cetera ignota.—Brazil: Engenheiro Reeve, State of Espirito Santo, alt. 500 meters, February 22, 1903, *A. Robert* (herb. Kew., type).

This remarkable *Psychotria* seems to be referable to Mueller's section *Solenocalyx*, which is characterized by a large corolloid calyx. *P. insolens* does not resemble closely any of the species previously referred to that group. In general appearance it is suggestive of some species of *Cephaelis*, but no member of that genus is known to have such a calyx as that of the plant here described.

Psychotria jasminoides Standl. Field Mus. Bot. 8: 211. 1930.

In the Kew herbarium the species is represented by two specimens, either of which may be the type collection.

Brazil: Engenheiro Reeve, Espirito Santo, 500 meters, February "30," 1903, *A. Robert;* February 18, 1903, *Robert.*

Psychotria Kuhlmannii, sp. nov.—Frutex inflorescentiis exceptis omnino glaber, ramulis crassiusculis teretibus, vetustioribus cinereis, novellis subcompressis fuscis, internodiis brevibus; stipulae caducae, non visae, ut videtur acutae vel acuminatae; folia parva brevissime petiolata opposita coriacea, petiolo crassiusculo 3–4 mm. longo; lamina anguste oblanceolato-oblonga 4.5–7.5 cm. longa 1.2–2 cm. lata acuta vel subobtusa basin versus longe sensim attenuata, basi ipsa acuta, supra in sicco fusca, valde lucida, costa venisque prominulis, subtus fusco-brunnescens, sublucida, costa gracili elevata, nervis lateralibus utroque latere c. 16 gracillimis prominulis angulo latiusculo adscendentibus obliquis subarcuatis prope marginem conjunctis, nervulis obscuris subimpressis; inflorescentia terminalis cymoso-corymbosa erecta 2–3 cm. longe pedunculata c. 2.5 cm. longa et aequilata dense multiflora trichotoma, ramis basilaribus suberectis crassiusculis subacute angulatis sparse obscure puberulis vel glabratis, bracteis ad basin ramulorum sitis ovato-triangularibus 1–2 mm. longis persistentibus acutis ciliolatis, floribus arcte sessilibus dense capitellato-congestis; hypanthium obovoideum glabrum 0.7 mm. longum, calyce aequilongo late campanulato obscure repando-denticulato; corolla alba 2.5 mm. longa extus sparse minutissime puberula vel glabrata in alabastro apice late obtusa, tubo obconico crasso in fauce dense albo-barbato, lobis 5 triangulari-oblongis obtusis patentibus tubo aequilongis intus glabratis; antherae semiexsertae; stylus exsertus.—Brazil: Rio Arinos, Matto Grosso, edge of river, December, 1914, *J. G. Kuhlmann 1449-K* (herb. Berol., type).

Referable to the subgenus *Mapouria*. Distinguished by the elongate, narrow, strongly coriaceous, and strikingly lustrous leaves.

Psychotria lancigera, sp. nov.—Frutex, ramis crassiusculis pallidis glabris in sicco striatis angulo recto divergentibus, internodiis elongatis; stipulae in vaginam latam truncatam pallidam glabram 1–1.5 mm. longam connatae, vagina lobis 4 vix 1 mm. longis subulatis erectis onusta; folia brevissime petiolata vel subsessilia parva coriacea opposita, petiolo crasso usque ad 2 mm. longo; lamina oblongo-lanceolata 4.5–5.5 cm. longa 1.3–1.8 cm. lata longissime sensim attenuato-acuminata, basi late rotundata vel breviter cordata, marginibus conspicue incrassatis latis pallidis, supra glabra griseo-viridis costa subdepressa, venis prominulis, plus minusve lucida, subtus pallida, costa crassiuscula elevata, nervis lateralibus utroque latere 8–10 elevatis fere rectis angulo semirecto adscendentibus in marginem desinentibus, venulis prominulis laxe reticulatis, ubique minutissime pruinoso-puberula; inflorescentia terminalis 10–14 mm. longe pedunculata erecta cymoso-umbellata densissime multiflora c. 1.5 cm. longa et 2 cm. lata basi bracteis 4 ovatis 3–4 mm. longis abrupte acuminatis minute puberulis fulcrata, pedunculo minute puberulo, ramis primariis paucis crassis rubellis puberulis adscendentibus, ramis secondariis brevissimis basi bracteatis, bracteis lanceolatis vel ovatis acuminatis brevibus persistentibus, floribus sessilibus; hypanthium 0.7 mm. longum crasse columnare puberulum, calyce aequilongo profunde lobato, lobis late ovatis vel triangularibus acutis vel acuminatis extus minute puberulis; corolla extus dense puberula in alabastro apice late rotundata vel subdepressa evoluta 7 mm. longa, tubo insuper paullo dilatato, lobis c. 1.8 mm. longis late oblongis obtusis subpatentibus.—Venezuela: Amazonas Territory, Cerro Yapacana, upper Río Orinoco, alt. 100 meters, April, 1931, *E. G. Holt & E. R. Blake 752* (U. S. Nat. Herb. No. 1,517,562, type).

The affinities of this species are not obvious. The plant is well marked by its handsome, narrow, elongate, coriaceous leaves with rounded or shallowly cordate base. The nerves run directly into the broad cartilaginous margin.

Psychotria lepida, sp. nov.—Arbor 6-metralis, trunco 4–5 cm. diam. praeter inflorescentiam omnino glabra, ramulis in sicco compressis gracilibus pallide brunnescentibus, internodiis elongatis; vagina stipularis 1.5 mm. tantum longa truncata, lobis utroque latere 2 brevissimis obtusis c. 1.5 mm. longis; folia magna petiolata firme membranacea, petiolo 1.5–3 cm. longo; lamina oblongo-elliptica 19–27 cm. longa 7–11.5 cm. lata breviter sensim acuminata, basi acuta et abrupte contracta, supra in sicco subviridis costa elevata, nervis prominentibus, subtus fere concolor, costa gracili valde elevata, nervis lateralibus utroque latere c. 21 gracillimis prominentibus angulo lato adscendentibus arcuatis prope marginem conjunctis, nervulis transversis subparallelis laxe reticulatis; in-

florescentia terminalis (perfecta non visa) erecta pedunculata dense cymoso-paniculata c. 3.5 cm. longa et 5.5 cm. lata multiflora basi trichotoma, ramis primariis infimis adscendentibus 1 cm. longis vel paullo ultra puberulis, ramis omnibus basi bracteatis, bracteis ellipticis vel obovatis plerumque 10–15 mm. longis fere glabris minutissime ciliolatis obtusis vel acutiusculis in sicco pallidis, floribus sessilibus; hypanthium late columnare 1 mm. longum glabrum, calyce campanulato 1.5 mm. longo glabro breviter acute dentato; corolla extus glabra, tubo gracili supra vix dilatato 9 mm. longo, lobis luteis anguste oblongis duplo brevioribus; stylus exsertus.—Peru: Mouth of Río Santiago, upper Río Marañón, alt. 160 meters, in upland forest, September 18, 1924, *G. Tessmann 4073* (herb. Berol., type). In the same general region, but without definite locality, *Tessmann 3952* (herb. Berol.).

A species of no particularly obvious relationships, somewhat suggestive of *P. lupulina* Benth. Outstanding in its large many-nerved leaves, and in the showy inflorescence with numerous large, brightly colored bracts.

Psychotria limonensis Krause, Bot. Jahrb. 54: Beibl. 119: 43. 1916.

Colombia: Villavicencio, Prov. Bogotá, 450 meters, 1851–57, *Triana 1698* (herb. Paris). Ibagué, 1844, *Goudot* (P).

Psychotria Lindenii Standl. Field Mus. Bot. 8: 71. 1930.

The species was based upon *Linden 1419*, labeled as coming from Colombia, but believed by the writer at the time of description to have been collected perhaps in Venezuela. That the species really does occur in Colombia is attested by the following specimen: Colombia: Prov. Antioquia, 1851–57, *J. Triana 1724* (herb. Paris).

Psychotria longipes Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 354. 1881.

Brazil: Rio de Janeiro, *Glaziou 4995* (herb. Stockholm). Prov. Rio de Janeiro, *Vauthier 57* (herb. Paris). Villa Velha, Paraná, in silva primaeva, *Dusén 14835*. Ponta Grossa, Paraná, in silvula, 880 meters, *Dusén 11625*. Carvalho, Paraná, September 13, 1911, *Dusén* (S); *Dusén 13323* (S). Villa Velha, Paraná, *G. Jänssan 221a* (S).

Psychotria pachyneura Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 359. 1881.

Brazil: "Environs de Rio Janeiro et d'Ouro Preto," *Glaziou 14901* (herb. Kew.). Minas Geraes, in 1840, *P. Claussen* (K).

Psychotria luxurians Rusby, Mem. Torrey Club 6: 50. 1896.

The species has been known heretofore from Ecuador and Bolivia. It may be reported now from Colombia: Las Pavas, Monte Quindío, 1,700 meters, 1851–57, *J. Triana 1683* (herb. Paris).

Psychotria myriantha Muell. Arg. Flora 59: 549. 1876.

Brazil: Estado de Rio de Janeiro, *Ule 4912* (herb. Berol.). Rio de Janeiro, *Wilkes Exped.* (U. S. Nat. Herb.). Campinas, São Paulo, *Campos Novaes 1445* (B). Prov. Rio de Janeiro, *Saint-Hilaire 8* (herb. Paris). Rio de Janeiro, *Gardner 5489* (herb. Kew.).

Psychotria nautensis, sp. nov.—Arbor 5.5 m. alta subramosa, ramulis crassiusculis fuscis obtuse tetragonis glabris; stipulae persistentes suberectae 5–6 mm. longae glabratae profunde bifidae, lobis semiovatis acutis; folia magna breviter petiolata opposita subcoriacea, petiolo gracili 1–2.5 cm. longo minute puberulo vel glabrato; lamina anguste oblanceolato-oblonga 18–28 cm. longa 6–7 cm. lata sensim longiuscule acuminata vel interdum subrotundata et abrupte breviacuminata, acumine obtusiusculo, basin versus longissime sensim attenuata, supra in sicco fusca, glabra, costa venisque non elevatis, subtus pallidior, brunnescens, costa gracili elevata, nervis lateralibus utroque latere c. 13 gracillimis prominentibus angulo latiusculo interdum fere recto abeuntibus subarcuatis juxta marginem conjunctis, nervulis vix prominulis laxe reticulatis; inflorescentia terminalis vix 1 cm. longe pedunculata cymoso-paniculata laxissime diffuse ramosa 15–20 cm. longa et aequilata, repetite ramosa, ramis gracilibus basi bracteatis patentibus vel saepius reflexis dense minute pilis patentibus fulvis sordidis pilosulis, bracteis lanceolatis vel oblongis plerumque 3–5 mm. longis acutis vel obtusis concavis minute pilosulis, floribus arcte sessilibus ad apices ramulorum et in dichotomiis subcapitatis bracteatis, bracteis ellipticis obtusis 2–3 mm. longis obtusis; hypanthium cum calyce c. 2 mm. longum minute patenti-pilosulum, calyce late campanulato truncato; corolla alba in alabastro 6–7 mm. longa obtusa crassiuscula densissime pilis brevibus ochraceis patentibus villosula; antherae 5 linearia.—Peru: Nauta, near the mouth of the Río Ucayali, in silvis recentioribus, April, 1855, *R. Spruce 3863* (herb. Kew., type).

A species of distinctive and unusual appearance, especially because of the large, diffuse panicles, and the unusual arrangement of the flowers; probably related to *Psychotria Franquevilleana* Muell. Arg.

Psychotria necopinata, sp. nov.—Omnino glabra, ramulis crassis teretibus fuscis laevibus, internodiis elongatis; stipulae erectae persistentes in vaginam ut videtur subtruncatam (an breviter lobatam?) incrassatam connatae; folia magna breviter petiolata opposita subcoriacea, petiolo crassiusculo 0.4–2 cm. longo; lamina oblonga vel anguste oblonga 15–27 cm. longa 5–6 cm. lata longiuscule acuminata, acumine angusto attenuato, basi acuta, supra in sicco flavescenti-olivacea, costa venisque ut quoque nervulis prominentibus, lucida, subtus concolor, costa crassiuscula elevata, nervis lateralibus utroque latere c. 23, aliis 2–3 fere aequalibus parallelis inter paria interpositis, prominentibus, gracilibus, angulo recto abeuntibus rectis, in marginem desinentibus, nervulis prominulis

arcte reticulatis; inflorescentia terminalis 6 cm. longe pedunculata erecta c. 2.5 cm. longa et 4.5 cm. lata, e capitulis 3 brevissime pedunculatis composita, capitulis lateralibus reflexis, basi bracteatis, bracteis liberis, exterioribus 2–2.5 cm. longis 4–5 mm. latis linearioblongis concavis longe attenuatis ut videtur rubellis vel purpureis basi subsaccatis, interioribus brevioribus sed conformibus, floribus numerosis dense capitato-congestis sessilibus; hypanthium 0.6 mm. longum, calyce late campanulato 1.5–2 mm. longo truncato vel undulato; corolla juvenilis 6–7 mm. longa in alabastro attenuata et apice minute 5-tuberculata; cetera ignota.—Brazil: Cucuhy, Rio Negro, State of Amazonas, alt. 120 meters, February, 1930, *E. G. Holt & W. Gehriger 386* (herb. Field Mus. No. 625,063, type). Rio Negro, "*Herb. Lusit.*" (herb. Paris).

A plant of striking appearance, probably a relative of *Psychotria pacimonica* Muell. Arg. *P. necopinata* is unusual in its large, shining, closely veined leaves, and in the large, elongate bracts of the flower heads.

Psychotria nitidula C. & S. Linnaea 4: 25. 1829.

Brazil: Rio de Janeiro, *Glaziou 18297* (herb. Berol., herb. Kew.). Theresopolis, Serra dos Orgaos, Prov. Rio de Janeiro, February, 1888, *J. T. de Moura 205* (B). Prov. Rio de Janeiro, *Saint-Hilaire 17* (herb. Paris). Rio de Janeiro, *Fra Leandro de Sacramento* (P). Rio de Janeiro, *Miers 3696* (K, P). Near Rio de Janeiro, February, 1824, *Gaudichaud* (P). Canoas prope Porto Alegre, Rio Grande do Sul, in silvula umbrosa, *Malme 1475* (herb. Stockholm); a shrub 1.7 meters high; fruit handsome blue.

Psychotria nudiceps Standl. Field Mus. Bot. 8: 378. 1931.

Described from eastern Peru, this species may be reported now also from adjacent Brazil: Seringal S. Francisco, Rio Acre, October, 1911, *E. Ule 9843* (herb. Kew.); a shrub 1–5 meters high; flowers yellowish white.

Psychotria obfuscata Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 377. 1881.

The only specimen cited by Mueller is the type, *Sello 5799*, which is represented in the herbarium of Field Museum by a photograph and fragment, received from the Berlin Botanical Garden. The following collections apparently represent the same species:

Brazil: Santos, in 1875, *Mosén 3415* (herb. Stockholm). Prov. São Paulo, *Gaudichaud 541* (herb. Paris). Near Santos, São Paulo, *Jard. Bot. Rio de Jan. 1699* (herb. Berol.).

Psychotria opima, sp. nov.—Frutex metralis ramosus, ramulis gracilibus teretibus fusco-ferrugineis glabris, internodiis elongatis; stipulae persistentes in vaginam brevissimam connatae, vagina in lacinias 4 setiformes erectas glabras remotas 7 mm. longas desinente;

folia magna breviter petiolata opposita membranacea, petiolo gracili glabro 1–2 cm. longo; lamina oblongo-elliptica usque ad late elliptica 16–25 cm. longa 8–12 cm. lata subabrupte longiacuminata, acumine triangulari acutissime attenuato, basi obtusa vel subrotundata et abrupte contracta atque breviter decurrens, supra in sicco fusca, sublucida, costa venisque prominulis, subtus fere concolor, sublucida, costa gracili elevata, nervis lateralibus utroque latere c. 12 gracilibus prominentibus remotis angulo latiusculo abeuntibus subarcuatis obliquis marginem attingentibus, nervulis transversis crebre parallelis undulatis vel interdum geniculatis prominulis; inflorescentia terminalis foliis multo brevior paniculata erecta 5 cm. longe pedunculata c. 10 cm. longa et 7 cm. lata laxiuscule multiflora, basi trichotoma, ramis superioribus oppositis vel alternis sparsis gracilibus dense puberulis, floribus sessilibus in cymulas parvas paucifloras dispositis, bracteis ad basin ramulorum sitis minutis; hypanthium cum calyce 1 mm. longum sparse puberulum vel glabratum, calyce patente obsolete repando-denticulato; corolla lutescens extus puberula in alabastro apice minute 5-cornuta, tubo cylindraceo 4 mm. longo supra vix dilatato fauce non barbato, lobis 5 oblongis obtusis patentibus intus glabratis tubo duplo brevioribus; antherae oblongo-lineares longe exsertae fere 2 mm. longae; stylus inclusus.—Peru: Lower Río Napo, in inundated forest, alt. 100 meters, August 1, 1924, *G. Tessmann 3710* (herb. Berol., type).

In general appearance the plant somewhat resembles *Psychotria myriantha* Muell. Arg., a species of southern Brazil.

Psychotria pandensis, sp. nov.—Omnino glabra, ramulis subgracilibus subteretibus in sicco plus minusve purpurascentibus, internodiis elongatis; stipulae persistentes erectae in vaginam truncatam incrassatam 3–4 mm. longam connatae, vagina in lobos 4 triangulari-ovatos obtusos 3 mm. longos desinente; folia magna petiolata opposita subcoriacea oblongo-elliptica 16–23 cm. longa 7–10 cm. lata apice acuta et abrupte caudato-acuminata, acumine fere lineari longe attenuato 2 cm. longo, basi acuta et interdum obliqua, supra in sicco viridescens, lucida, costa venisque prominentibus, subtus vix pallidior, costa gracili elevata purpurascente, nervis lateralibus utroque latere c. 17 gracilibus prominentibus angulo recto divergentibus leviter curvis prope marginem conjunctis, nervulis prominulis laxissime reticulatis; inflorescentia terminalis erecta 6 cm. longe pedunculata capituliformi-contracta dense multiflora breviter lobata basi trichotoma, ramis primariis 5–10 mm. longis crassis basi vel paullo supra basin bracteatis, bracteis omnibus linearibus vel lanceolato-linearibus purpurascentibus plerumque 1–1.5 cm. longis, interdum longioribus, attenuatis obscure ciliolatis persistentibus, floribus dense congestis sessilibus bracteatis; bacca didyma basi et apice profunde constricta, c. 7 mm. lata et 5 mm. alta, pyrenis dorso late rotundatis laevibus; calyx (perfectus non visus) minutus ad apicem baccae persistens; cetera ignota.—Colombia: Fusagasugá and Pandi, Prov. Bogotá, alt. 2,000 meters, 1851–57, *J. Triana 1709* (herb. Paris, type).

Because of the form of its fruit, the plant is clearly related to *Psychotria cuspidata* Bredem., but the inflorescences are altogether different in the two species.

Psychotria paracatuensis, nom. nov. *Mapouria corymbifera* Muell. Arg. Flora 58: 458. 1876, non *Psychotria corymbifera* Muell. Arg. 1881.

Psychotria paraguariensis Chod. & Hassl. Bull. Herb. Boiss. II. 4: 177. 1904.

Paraguay: Between Río Apo and Río Aquidabán, edge of forest, *Fiebrig 4320* (herb. Paris); a shrub 2 meters high; flowers white. Colonia Presidente González, in silva primaeva, August, 1893, *Lindman A.1763* (herb. Stockholm); a very slender shrub 1–2 meters high.

Psychotria patentinervia Muell. Arg. Flora 59: 543. 1876.

Brazil: Rio de Janeiro, *Widgren 684* (herb. Stockholm). Without locality, *Widgren 1230* (S). Sororocaba, Prov. São Paulo, in ripa umbrosa rivuli silva primaeva, February, 1875, *Mosén 3411* (S); December, 1874, *Mosén 2876* (S). Corcovado, Prov. Rio de Janeiro, February, 1895, *Ule 3806* (herb. Berol.). Cubatão, São Paulo, March, 1923, *August Gehrt 8225* (B). Without locality, *Burchell 3644* (herb. Kew.), *2550* (K).

Psychotria phaneroplexa, sp. nov.—Fruticulus omnino glaber, ramis crassiusculis dense foliatis fusco-brunneis subteretibus; vagina stipularis incrassata vix 1 mm. longa, lobis brevissimis dentiformibus; folia parva subsessilia crasse coriacea, petiolo vix 1 mm. longo; lamina forma variabilis oblonga lanceolato-oblonga vel rarius elliptica vel elliptico-obovata 1.5–5 cm. longa 1.3–2 cm. lata acuta vel rotundata et mucronata, basi late rotundata vel anguste subcordata, supra sublucida olivacea costa nervisque valde elevatis, subtus flavescens pallidior, costa valde elevata, nervis lateralibus utroque latere c. 15 approximatis elevatis angulo semirecto vel latiore adscendentibus marginem attingentibus et in nervum marginale conjunctis, nervulis prominulis arcte reticulatis; inflorescentia terminalis breviter pedunculata capitiformis densissime multiflora, ramis brevissimis, bracteis ut videtur viridibus ellipticis vel lanceolato-ellipticis acutis 4–5 mm. longis coriaceis conspicue elevato-nervosis, floribus arcte sessilibus; hypanthium glabrum late obconicum, sepalis fere distinctis anguste triangularibus acutiusculis erectis 0.8 mm. longis; corolla alba in alabastro 2.5 mm. longa extus glabra apice late rotundata.—Brazil: Campina do Perdido prope Bella Vista, Rio Tapajoz, civ. Pará, December 6, 1915, *A. Ducke 23114* (herb. Berol., type).

Referable to the group *Inundatae*, as treated by Mueller in the *Flora Brasiliensis*. Noteworthy for the small, leathery, conspicuously nerved leaves, broad or shallowly cordate at the base and merely acute to rounded and mucronate at the apex; also for the indurate and conspicuously veined bracts of the inflorescence.

Psychotria phoeniciana Standl. Journ. Wash. Acad. Sci. 16: 17. 1926.

Of this species, known heretofore only from the type, which was collected in Chiapas, several additional collections have come to hand recently:

Mexico: Teotalcingo, June, 1842, *Liebmann 9* (herb. Kew.). Petlapa, June, 1842, *Liebmann 8* (K), *9* (K). Without locality, *Liebmann 10* (K).. Tanetze, August, 1842, *Liebmann 82* (K). Cordillera of Oaxaca, 1,950 meters, August, 1840, *Galeotti 2602* (K); flowers white.

Psychotria pluriceps, sp. nov.—Frutex omnino glaber, ramulis gracilibus rectis subteretibus olivaceis, internodiis valde elongatis; stipulae erectae persistentes viridescentes in vaginam 1 mm. longam connatae, vagina in lobos 4 remotos anguste triangulari-oblongos acutos desinente; folia majuscula breviter petiolata opposita membranacea, petiolo gracili c. 1 cm. longo; lamina ovato-oblonga vel elliptico-oblonga 15–23 cm. longa 6–8.5 cm. lata subabrupte caudato-acuminata, acumine late lineari longe attenuato, basi acuta vel subabrupte contracta et breviter cuneato-decurrens, supra in sicco olivacea, sublucida, costa venisque prominentibus, subtus fere concolor, costa gracili elevata, nervis lateralibus utroque latere c. 14 gracillimis prominentibus pallidis angulo fere recto divergentibus subarcuatis prope marginem conjunctis, nervulis pro parte horizontalibus et nervis parallelis prominulis laxe reticulatis; inflorescentia parva terminalis capitellato-paniculata erecta 7 mm. longe pedunculata c. 2 cm. longa et 3 cm. lata, ramis paucis, basilaribus radiatim verticillatis patentibus vel subreflexis gracilibus rectis olivaceis, floribus arcte sessilibus in capitula 4–6 mm. lata dense pauciflora plerumque pedunculata dispositis, ramulis basi bracteatis, bracteis viridibus patentibus oblongo-triangularibus persistentibus acuminatis; hypanthium late obconicum 1 mm. longum, calyce late campanulato 0.8 mm. longo truncato et remote denticulato; corolla extus glabra in alabastro apice rotundata 2.5 mm. longa, tubo late obconico in fauce dense albo-barbato, lobis 5 patentibus late ovato-triangularibus obtusis intus glabris; antherae exsertae oblongae 0.7 mm. longae obtusae; stylus inclusus.—Peru: San Ramón, Yurimaguas, Dept. Loreto, in forest, November 4, 1929, *Llewelyn Williams 4573* (herb. Field Mus. No. 623,451, type).

Similar in foliage characters as well as in the flowers to *Psychotria nudiceps* Standl., of the same general region, but in that the flower heads are not paniculate but rather on simple peduncles.

Psychotria plusiantha, sp. nov.—Ramuli crassi sparse minute adpresso-pilosuli vel fere glabri subteretes; stipulae persistentes erectae 7–8 mm. longae extus sparse minute adpresso-pilosulae ad medium bilobae, lobis oblongo-ovatis obtusis vel acutiusculis approximatis; folia breviter petiolata opposita majuscula crasse membranacea, petiolo 7–12 mm. longo crassiusculo puberulo vel glabrato; lamina late obovato-oblonga 16–21 cm. longa 6–7 cm. lata apice

abrupte cuspidato-acuminata, acumine angusto attenuato 1–1.5 cm. longo, basin versus longiuscule sensim attenuata, supra in sicco fusca, glabra vel tantum ad venas minute sparse puberula, costa venisque prominentibus, subtus fusco-purpurascens, ad venas sparse minutissime adpresso-pilosula vel fere glabra, costa gracili elevata, nervis lateralibus utroque latere c. 14 gracillimis prominentibus angulo latiusculo adscendentibus obliquis arcuatis in marginem desinentibus, nervulo elongato parallelo inter paria nervorum interposito, nervulis transversis paucis obscuris laxissime reticulatis; inflorescentia terminalis capituliformis e cymis reductis densissime multifloris composita, 3 cm. longa et 5 cm. lata, pedunculo crasso 1.5 cm. longo erecto dense minute sericeo, floribus sessilibus, bracteis inferioribus brevibus oblongis, interioribus brevibus et inconspicuis; hypanthium obconicum glabrum 1.5–2 mm. longum; calyx glaber fere ad basin 5-fidus, laciniis late linearibus attenuatis suberectis crassis 8–10 mm. longis; corolla infundibuliformis in alabastro apice obtusa extus dense sordido-puberula, tubo gracili 14 mm. longo fauce subabrupte dilatato intus non barbato, lobis 5 anguste oblongis attenuatis obtusis patentibus intus minutissime puberulis; antherae breviter exsertae subrecurvae lineares 3 mm. longae; stylus inclusus.—Colombia: Provincias de Chocó y Barbacoas, alt. 100 meters, 1851–57, *J. Triana 1711* (herb. Paris, type); May, 1853, *Triana 3147(38)* (P).

The plant is a difficult one to place generically and when better material is obtained it may be necessary to remove it from *Psychotria*, perhaps to *Cephaelis*.

Psychotria quindiensis, sp. nov.—Ramuli crassi glabri; stipulae persistentes in vaginam arcte adpressam glabram truncatam 7 mm. longam connatae, vagina in lobos 4 erectos lineari-attenuatos 1 cm. longos desinente; folia maxima petiolata opposita membranacea, petiolo 3 cm. longo glabro; lamina oblongo-elliptica c. 32 cm. longa et 13 cm. lata basi et apice acuta, supra in sicco viridescens, glabra, costa venisque prominulis, subtus paullo pallidior, sparse minutissime adpresso-pilosula, ad costam pilis paullo longioribus albidis pilosa, costa gracili elevata rubescente, nervis lateralibus utroque latere c. 18 gracillimis prominentibus angulo fere recto adscendentibus obliquis arcuatis juxta marginem conjunctis, nervulis prominentibus laxe reticulatis; inflorescentia terminalis erecta cymoso-paniculata c. 19 cm. longa et aequilata, pedunculo 7 cm. longo tetragono sparse puberulo vel glabrato, basi trichotoma, ramis basilaribus valde adscendentibus, superioribus compressis adscendentibus pallide sericeis basi bracteatis, floribus sessilibus in capitula pauciflora densa cymose diposita confertis, bracteis inferioribus oblongo-obovatis 1–1.5 cm. longis convolutis obtusis usque ad breviter acuminatis suberectis extus dense sericeis intus ferrugineis glabris, bracteis capitulorum c. 1 mm. longis aequilatis adpressis, intimis brevioribus; hypanthium obpyramidatum dense sericeum fere 2 mm. longum; calyx 5-partitus, laciniis 2 mm. longis anguste triangularibus

acutis vel acuminatis extus dense fulvo-sericeis erectis inaequalibus; corolla in alabastro apice obtusa extus densissime pilis fulvis villoso-pilosa 12 mm. longa, tubo supra paullo dilatato, lobis brevibus.—Colombia: La Trocha, Quindío, Prov. Cauca, alt. 2,300 meters, 1851–57, *J. Triana 1710* (herb. Paris, type).

This is one of the rather numerous plants which might be referred almost equally well to either *Psychotria* or *Cephaelis*. Among the Colombian Psychotrias it is noteworthy for its very large leaves and for the ample, openly branched inflorescence with capitate-congested flowers and exceptionally large, conspicuous, persistent bracts.

Psychotria racemifera Standl. Field Mus. Bot. 8: 71. 1930.

The species was described from Venezuela. Apparently it has a wide range, as indicated by the following collections:

Peru: Timbuchi on the Río Nanay, Loreto, a shrub in forest, June, 1929, *Williams 952*.—Brazil: Manáos, July, 1900, *Ule 5121* (herb. Berol., herb. Kew.); a shrub 1 meter high or less; fruit blue. Jarú, Rio Branco, Amazonas, February, 1913, *Kuhlmann 2976* (B); vernacular name, "herva de rato." Faro, State of Pará, silva ad rivulum Maburiny, locis humidis, January, 1920, *Ducke 15353* (B); flowers white.

Psychotria rigescens, sp. nov.—Suffrutex 50 cm. altus ramosus, ramis rigidis subteretibus, novellis minutissime puberulis, internodiis brevibus vel elongatis; vagina stipularis indurata 1.5–2 mm. longa, parte libera bilobata, lobis brevissimis obtusis; folia parva rigida subcoriacea breviter petiolata, petiolo glabro 2–3 mm. longo; lamina late elliptica vel rotundato-ovata 3.5–5.5 cm. longa 2–3.5 cm. lata subabrupte breviter obtuso-acuminata, basi obtusa vel saepius late rotundata et abrupte breviter contracta, glabra, in sicco olivaceo-viridis, supra sublucida costa venisque valde elevatis, subtus fere concolor opaca, costa gracili elevata, nervis lateralibus utroque latere c. 7 angulo lato adscendentibus valde arcuatis gracilibus prominentibus, nervulis prominentibus arcte reticulatis; inflorescentia terminalis parva erecta 10–14 mm. longe pedunculata e cymis 5 racemose dispositis parvis paucifloris composita c. 1 cm. longa et 2 cm. lata, pedunculo minutissime puberulo, cymarum pedunculis rigidis usque ad 6 mm. longis late divaricatis basi incrassatis ebracteatis, floribus arcte sessilibus, bracteis obsoletis; hypanthium late columnare 0.7 mm. longum minutissime puberulum, calyce vix 0.3 mm. longo obsolete denticulato; corolla alba in alabastro obovoidea puberula apice obtusa vel subrotundata 2.5–3 mm. longa, lobis tubo longioribus.—Brazil: Rio Trombetas, civ. Pará, locis altis circa cataractam Porteira in fruticetis "campina-rana" dictis, January 10, 1927, *A. Ducke 23062* (herb. Berol., type). Campina do Jufiry prope lacum Faro, civ. Pará, February 12, 1910, *A. Ducke 23031* (B).

The plant here described would have been referred by Mueller in the *Flora Brasiliensis* probably to *Psychotria cuspidata* Bredem., for it is closely similar to some of the forms of eastern Brazil that he placed with that species. However, it seems probable that most of the forms occurring south of the Amazon ultimately will have to be separated from the typical plant of the northern coast of South America. The present plant may be recognized by its small, broad, stiff, and prominently veined leaves.

Psychotria rondeletioides Standl. Field Mus. Bot. 7: 110. 1930.

Based upon a specimen in the Kew herbarium collected by Funck and Schlim somewhere in Colombia. The following specimen, in the Paris herbarium, although its data are somewhat different, is probably of the same or type collection:

Colombia: San Pedro, Prov. Ocaña, 1,800 meters, May, 1846–52, *L. Schlim 663;* a shrub with white flowers.

Psychotria santae-rosae Standl. Field Mus. Bot. 7: 113. 1930.

Colombia: Prov. Barbacoas, 1851–57, *J. Triana 1716* (herb. Paris).

Known previously only from the type specimen.

Psychotria santaremica Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 328. 1881.

This species may be reported as an addition to the known flora of Colombia: Quibdó, Río Atrato, Intendencia del Chocó, 60 meters, April–May, 1931, *W. A. Archer 1909.* A shrub 3 meters high; bracts of the inflorescence purple.

Psychotria Schottiana Muell. Arg. Flora 59: 547. 1876; in Mart. Fl. Bras. 6, pt. 5: 291. *pl. 43, f. 1.* 1881.

Brazil: Organ Mountains, Rio de Janeiro, *Miers 4122* (herb. Kew.), *4107* (K).

Psychotria smaragdina, sp. nov.—Ramuli teretes in sicco fusci glabri; stipulae persistentes arcte vaginantes fere ad medium in lobos 2 lineares acutos bifidae glabrae; folia mediocria petiolata papyracea, petiolo gracili 1–2 cm. longo glabro; lamina elliptica vel oblongo-elliptica 9–16 cm. longa 4–7 cm. lata abrupte cuspidato-acuminata, acumine angusto attenuato 1–1.5 cm. longo, basi abrupte acuta et breviter decurrens, supra in sicco fusca glabra opaca costa prominula, subtus concolor sublucida sparse minute strigillosa, ad venas minute hispidula vel puberula serius glabrata, costa gracili elevata, nervis lateralibus utroque latere c. 13 gracilibus elevatis angulo fere recto divergentibus arcuatis, nervulis prominulis; inflorescentia terminalis pyramidalis 4 cm. longe pedunculata circa 11 cm. longa et 6.5 cm. lata, simpliciter ramosa, ramis 4–5-jugis oppositis

subreflexis spiciformibus basi bracteis lanceolatis persistentibus ad 5 mm. longis fulcratis, hispidulis, floribus parvis aggregatis arcte sessilibus, bracteolis minutis, bracteis superioribus parvis ovatis; hypanthium minutum, calyce vix 1 mm. lato brevissime obtuse dentato glabrato; corolla viridi-alba 4 mm. longa extus sparse minutissime puberula vel fere glabra, lobis 4 oblongo-ovatis obtusis 1.2 mm. longis intus dense barbatis.—Colombia: Lower Chapón, Department of Boyaca, alt. 900 meters, edge of forest, August 8, 1932, *A. E. Lawrance 405* (herb. N. Y. Bot. Gard., type; fragm. in herb. Field Mus.).

The collector states that the vernacular name is "esmeralda" (emerald), in allusion to the small, bright green, emerald-like immature fruits. He reports further that the plant is a tree 18–22 meters high, with a trunk 60–120 cm. in diameter, which probably is an error, since no species of *Psychotria* is known to attain half that size. Among the Psychotrias known from Colombia, this is marked by its open pyramidal inflorescence, with simple, spike-like, conspicuously reflexed branches.

Psychotria stachyoides Benth. Linnaea 23: 464. 1850.

Although this species seems to be common and widely distributed in Brazil, Mueller listed only a few collections, and it is perhaps worth while to enumerate some of those examined recently by the writer:

Brazil: Without locality, *Pohl 802* (herb. Kew.); *Burchell 4661* (K), *2429* (K); *Sello* (K). São Paulo, Bosque da Saude, in thickets, December, 1911, *Brade 5272* (herb. Stockholm); a shrub with whitish flowers. Prov. Minas Geraes, *Saint-Hilaire* (herb. Paris). Prov. Rio de Janeiro, *Miers 4111* (K), *4112* (K). Jaguariahyva, in silvula, Paraná, 740 meters, *Dusén 10703*. Villa Velha, Paraná, *Jänssan 1180a* (S). Itaparussú, Paraná, 880 meters, *Dusén 7092* (S). Theresopolis, Serra dos Orgaos, Prov. Rio de Janeiro, *J. T. de Moura 278* (herb. Berol.). García, bei Blumenau, Santa Catharina, November, 1888, *E. Ule 1046* (U. S. Nat. Herb.). Campinas *José de Campos Novaes 711* (U. S. Nat. Herb.).

Psychotria stenostachya Standl. Field Mus. Bot. 8: 207. 1930.

The plant seems to be plentiful in the lowlands of eastern Peru, numerous collections having been reported when the species was published. Brazilian specimens also have come to hand recently:

Brazil: Juruá Miry, Rio Juruá, October, 1901, *Ule 5837* (herb. Kew.); distributed as *P. racemosa* Willd., which it does not resemble closely; a small shrub. Falls of the Madeira River, October, 1886, *Rusby 1879* (K).

Psychotria subremota Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 315. 1881.

The type was collected "in Brasilia orientali tropica" by Sello. The type, in the Berlin herbarium, is represented in Field Museum by a photograph and fragment, which are well matched by the following localized collections:

Brazil: Dourado, Minas Geraes, May, 1846, *Widgren* (herb. Stockholm). Rio de Janeiro, *Widgren* (S).

Psychotria subspathacea Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 266. 1881.

Brazil: Itabapoana, Espirito Santo, December, 1887, *J. T. de Moura 206* (herb. Berol.). Rio de Janeiro, prope urbem in silvis circa Hortum Botanicum, December, 1917, *Dionisio Constantino 15446* (herb. Berol.).

Psychotria suerrensis Donn. Smith.—Described originally from Costa Rica, this species is frequent in the Atlantic lowlands of that country, growing in dense forest. It may be reported also for Nicaragua: Chontales, in forest, 600 meters, in 1870, *P. Lévy 512* (herb. Paris). Braggman's Bluff region, April, 1928, *F. C. Englesing 184*.

Psychotria tenerior (Cham.) Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 331. 1811. *Patabea tenerior* Cham. Linnaea 9: 236. 1835.

Described from Brazil, the exact locality not known. The following collections agree well with a photograph and fragment of the type, from the Berlin herbarium:

Paraguay: Vallée de l'y Acanguazú près de Valenzuela, dans les bois, March 15, 1884, *Balansa 4770* (herb. Kew.); a branched shrub 1 meter high.—Brazil: Rio Preto, Pernambuco, September, 1839, *Gardner 2890* (K); a shrub 1 meter high.

Psychotria terminalis Vell. Fl. Flum. 65. 1825.

Brazil: "Environs de Rio Janeiro," *Glaziou 12037* (herb. Kew.). Santa Catharina, *F. Mueller 298* (K). Serra do Mar, Desvio Ypiranga, Paraná, in silva primaeva, 700 meters, February, 1914, *Dusén 15044a*. Jacarehy, Paraná, in silva primaeva, September, 1908, *Dusén 6626*. Serra do Mar, Porto de Cima, Paraná, 200 meters, March, 1914, *Dusén 50a* (herb. Stockholm). Ibupava, Paraná, 460 meters, June, 1909, *Dusén 8214* (S). Morretes, Paraná, April, 1904, *Dusén 4350* (S).

Psychotria Trianae, sp. nov.—Praeter inflorescentiam omnino glabra, ramulis gracillimis teretibus, internodiis valde elongatis; stipulae persistentes firmae erectae fere ad basin bifidae, laciniis anguste lineari-lanceolatis attenuatis venosis; folia mediocria sessilia opposita lanceolato-oblonga membranacea 12–14 cm. longa 3–4 cm. lata longissime et angustissime attenuata basi late rotundata et breviter cordata, supra in sicco fusca lucida, costa nervisque promi-

nulis, subtus fere concolor, costa gracili elevata, nervis lateralibus utroque latere c. 15 tenerrimis prominulis angulo recto divergentibus arcuatis juxta marginem in nervum collectivum conjunctis, nervis 1–2 gracilioribus subparallelis inter paria interpositis, nervulis transversis subparallelis connexis; inflorescentia axillaris vel pseudo-axillaris ut videtur recurva cymoso-paniculata laxe multiflora graciliter 7–13 cm. longe pedunculata 5–8 cm. lata et fere aequilonga decussato-ramosa, ramis ut pedunculo minute hirtellis vel glabratis, ramis saepe valde elongatis et secundifloris, floribus in fasciculos paucifloros aggregatis sessilibus, bracteis linearibus ad basin ramorum insertis linearibus patentibus usque ad 7 mm. longis; hypanthium glabrum 0.5 mm. longum, calyce profunde lobato 1.5 mm. longo, laciniis lanceolato-oblongis acutis vel acuminatis erectis glabris; corolla extus glabra in alabastro 4 mm. longa apice obtusa, tubo gracili supra dilatato; drupae depresso-globosae subdidymae 3.5 mm. latae glabrae calyce persistente coronatae, pyrenis dorso acute costatis.—Colombia: Provincia de Barbacoas, May, 1853, *J. Triana* (herb. Paris, type).

The plant is a unique one, clearly a *Psychotria*, but not readily associable with any other species that I have seen. Its general appearance would suggest an association with *P. patens* Sw. The narrow, sessile and more or less cordate, extremely attenuate-acuminate leaves are distinctive.

Psychotria trivialis Rusby, Mem. Torrey Club 6: 50. 1896.

Hitherto this species has been known only from Bolivia, where it appears to be not uncommon. Recent collections show that it is a member also of the Peruvian flora, the following specimens being at hand:

Peru: Puerto Arturo, Yurimaguas, 155–210 meters, a small shrub in forest, November, 1929, *Williams 5292*. Fortaleza, Yurimaguas, 155–210 meters, a small shrub at edge of forest, October, 1929, *Williams 4283*.

Psychotria Ulei, sp. nov.—Omnino glabra, ramulis gracilibus subcompressis fusco-olivaceis, internodiis foliis brevioribus; stipulae persistentes erectae basi vix 1 mm. longe connatae, vagina in lobos 4 setiformes 1.5–2 mm. longos deciduos desinente; folia mediocria petiolata opposita firme membranacea, petiolo gracili 10–16 mm. longo; lamina late elliptica vel rarius oblongo-elliptica 5.5–11 cm. longa 2.5–6.5 cm. lata abrupte acuta vel breviacuminata, acumine triangulari obtuso, basi acuta vel interdum obtusa et abrupte breviter decurrens, supra in sicco cinereo-viridis vel lutescens, costa venisque valde elevatis, subtus paullo pallidior, costa gracili elevata, nervis lateralibus utroque latere c. 12 prominentibus approximatis aequalibus angulo fere recto abeuntibus valde arcuatis prope marginem pallidum paullo incrassatum conjunctis, nervulis prominulis laxe reticulatis; inflorescentia terminalis sessilis capitato-ternata, pedun-

culis crassis valde compressis 2–3.5 cm. longis erectis vel adscendentibus, floribus ad apices pedunculorum dense subcapitato-confertis numerosis sessilibus vel breviter crasse pedicellatis, bracteis persistentibus ad basin ramorum insertis anguste triangularibus acuminatis 3–4 mm. longis, bracteis florum conformibus c. 2 mm. longis; hypanthium late obovoideum 1.5 mm. longum; calyx anguste cylindrico-infundibuliformis in alabastro clausus et apice saepe apiculatus 10–14 mm. longus et supra usque ad 6 mm. latus ut videtur purpurascens obscure striato-nervius brevissime lobatus, lobis apice rotundatis vel obtusissimis erectis; corolla glabra calyce inclusa et eo vix longior, tubo crassiusculo supra paullo dilatato, lobis 5 triangulari-oblongis crassis obtusis erectis 2–2.5 mm. longis; antherae inclusae; bacca immatura globosa 6 mm. longa basi et apice rotundata.—Brazil: Rocky cliffs, Serra do Macahé, Estado de Rio de Janeiro, alt. 1,300 meters, February, 1900, *E. Ule 4913* (herb. Berol., type).

Closely related to *Psychotria stenocalyx* Muell. Arg., according to the description of that species, of which I have seen no material. *P. stenocalyx* is described as having a calyx as much as 2 cm. long.

Psychotria vittoriensis Muell. Arg. Flora 59: 548. 1876.

Brazil: Prov. Espirito Santo, 1816–21, *Saint-Hilaire B.335* (herb. Paris). Engenheiro Reeve, Espirito Santo, 500 meters, 1903, *A. Robert* (herb. Kew.).

The species of *Psychotria* of Mueller's group *Fissistipulae* could perhaps be placed more satisfactorily or at least more conveniently in *Rudgea*. The two genera can be separated certainly only with mature fruit, which seldom is present on the specimens. *Rudgea* can be recognized most surely by the form of the stipules. The stipules in this group of *Psychotria* are so much like those of many *Rudgea* species that one is almost certain to refer the species of the *Fissistipulae* to *Rudgea*, unless thoroughly familiar with all the *Psychotria* species.

Psychotria Wilkesiana Standl. Field Mus. Bot. 8: 214. 1930.

Brazil: Without locality, *Sello 119* (herb. Kew). Organ Mountains, Rio de Janeiro, *John Miers 4117* (K).

Psychotria xanthocephala Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 351. *pl. 53, f. 1.* 1881.

Brazil: Santa Anna da Chapada, Matto Grosso, in silva sat clara, August, 1902, *Malme 2203* (herb. Stockholm); a shrub scarcely 1.7 meters high. Goyaz, *Glaziou 21550* (S). Central Brazil, in 1844, *Weddell 1976* (herb. Paris).

Psychotria xanthophylloides (Muell. Arg.), comb. nov. *Mapouria xanthophylloides* Muell. Arg. Flora 59: 496. 1876.

Randia calycosa Standl. Contr. U. S. Nat. Herb. 20: 201. 1919.

Unlike most members of the genus, *Randia calycosa* is a plant of the high mountain forests. It was described originally from the Cerro de Horqueta, Chiriquí, Panama, at 1,700 meters and it may be reported now from one of the most famous collecting grounds in Costa Rica, whose flora seems to be altogether inexhaustible:

Costa Rica: In pastures at La Palma, a small tree, August, 1898, *A. Tonduz 12481* (herb. Berol.).

Randia Killipii Standl. Field Mus. Bot. 8: 170. 1930.

A well-marked species, known heretofore from several collections obtained in Loreto and Junín, Peru. It may be reported now as a member of the Colombian flora: Colombia: Río Putumayo, on the Peruvian boundary, in forest, *Klug 1608.*

A tree 3 meters high; flowers white. The corolla tube may be as much as 4 cm. long, and the lobes of equal length, measurements slightly greater than in Peruvian specimens. The young branchlets are hispid, also, the pubescence being less dense than in the original material.

Randia laetevirens Standl. Contr. U. S. Nat. Herb. 23: 1377. 1926.

A new local name appears upon the label of a collection examined recently: Mexico: Fortín, Veracruz, March, 1883, *E. Kerber 392* (herb. Leningrad). Vernacular name, "coronillo."

Richardia humistrata (Cham. & Schlecht.) Steud. Nom. Bot. ed. 2. 2: 459. 1840. *Richardsonia humistrata* Cham. & Schlecht. Linnaea 3: 353. 1828; Schum. in Mart. Fl. Bras. 6, pt. 6: 97. *pl. 88, f. 2.* 1888.

In plate 88 of the *Flora Brasiliensis* there are illustrated two plants, *Richardsonia humistrata* and *Schwendenera tetrapyxis.* Schumann's citations of the two figures under the descriptions of the species illustrated, as well as the text of the plate, are incorrect. Figure 1, which he cites for *Richardsonia humistrata* is really *Schwendenera,* and figure 2, which he cites under *Schwendenera,* is really *Richardsonia humistrata.* This typographical error has led to confusion in determination. *Reineck & Czermak 76* listed below was distributed as *Schwendenera,* and it is the *Schwendenera* of the plate, although casual reading of the description of that genus would have shown that the specimens could not possibly be referred there. Of *Richardia humistrata* the following collections have been seen by the writer:

Brazil: Rio Grande do Sul, *Reineck & Czermak 76* (herb. Stockholm). Porto Alegre, Navegantes, December, 1901, *Malme 304a* (S). Rio Grande, in arenosis sat siccis, October, 1901, *Malme 20* (S). Quinta near Rio Grande, in campo arenoso subhumido, November, 1901, *Malme 304* (S).—Uruguay: near Montevideo, *Sello d10* (fragm. ex herb. Berol.).—Peru: Cutervo, Cajamarca, *Raimondi 5689* (fragm. ex herb. Berol.).

The species is reported also from the State of Santa Catharina, Brazil.

Rondeletia intermedia Hemsl. Diag. Pl. Nov. 26. 1879.

The species was based upon *Linden 1659* and *1661* from Chiapas. I have seen in the Delessert Herbarium a specimen of *Linden 1661*, collected at Pueblo Nuevo, Chiapas (Hemsley does not give the locality), in February, 1840. In the same herbarium there is another specimen obtained by the same collector, without number, in pine forests of Chiapas in the same month.

Hemsley cites with the original description also *Jurgensen 798* from Oaxaca, but the specimen of this number in the Delessert Herbarium is clearly *Rondeletia amoena* (Planch.) Hemsl., and does not agree with Hemsley's description. Perhaps two species have been distributed under the same number. Linden describes the corollas of *R. intermedia* as red ("rouges").

Rondeletia Galeottii Standl. N. Amer. Fl. 32: 59. 1918.

Mexico: Sulusuchiapa, Chiapas, 800 meters, April, 1840, *J. Linden 333* (herb. Deless.). Flowers white.

Rondeletia oaxacana, sp. nov.—Ramuli graciles teretes dense ferrugineo-tomentosi, internodiis elongatis; stipulae erectae persistentes c. 6 mm. longae e basi triangulari subulato-attenuatae tomentosae; folia mediocria sessilia vel vix 2 mm. longe petiolata subcoriacea ovato-ovalia vel elliptico-ovalia 4.5–9.5 cm. longa 3–5 cm. lata acuta vel abrupte breviter acuta basi late rotundata et breviter vel profunde cordata plus minusve rugosa vel bullata supra in sicco fusca puberula vel breviter pilosa asperula costa venisque subimpressis, subtus pallidior vel incana dense tomento albido arachnoideo-tomentosa costa gracili elevata, nervis lateralibus utroque latere circa 8 angulo latiusculo adscendentibus arcuatis prominentibus marginem fere attingentibus, venulis prominentibus arcte reticulatis; inflorescentia terminalis anguste cymoso-paniculata dense multiflora erecta 5.5 cm. longe pedunculata 12 cm. longa et basi 5 cm. lata, decussata, ramis primariis brevibus arcuatim adscendentibus vel subdivaricatis dense ferrugineo-tomentosis, bracteis lineari-lanceolatis usque ad 6 mm. longis tomentulosis, ramis primariis cyma capituliformi terminatis, cymis densissime multifloris, floribus sessilibus; hypanthium ut calyx dense ferrugineo-tomentosum, calycis laciniis 4 subaequalibus ovali-oblongis obtusis 2.5 mm.

longis intus glabris; corolla alba extus dense pilis crassiusculis subpatentibus ferrugineis vel fulvis hispidula, tubo gracili tereti 1 cm. longo supra vix dilatato, lobis intus glabris rotundatis 4–5 mm. longis patentibus.—Mexico: Oaxaca, October, *H. Galeotti 2664 bis* (herb. Paris, type).

A well-marked species of the group *Laniflorae*, noteworthy for the sessile leaves with cordate bases.

Rondeletia parviflora Poir. in Lam. Encycl. 6: 252. 1804. *R. arborescens* Griseb. Fl. Brit. W. Ind. 327. 1861.

The type of *R. parviflora*, which was listed by the present writer in the *North American Flora* (32: 86. 1918) as a doubtful species, was collected in Martinique by Richard. In the Delessert Herbarium there is a specimen from the Ventenat Herbarium, which is labeled as *Rondeletia parviflora*, with the statement that it was collected in the Antilles by Richard. It is, therefore, presumably authentic material of that species. The specimen agrees perfectly with the following collections, which have been referred by the writer and others to *R. arborescens*.

Martinique: *Duss 942*. Forêt de l'Alma, *Hahn 639* (herb. Paris).—Guadeloupe: *Duss* (herb. Paris); *Duss 2552*.

Rondeletia pubescens HBK. Nov. Gen. & Sp. 3: 396. *pl. 291*. 1820. *R. brevipes* Benth. Pl. Hartw. 191. 1845.

In the *Rubiaceae of Colombia* (Field Mus. Bot. 7: 28. 1930) *Rondeletia brevipes* was listed as a valid species, but with some question regarding its proper status. Recently I have been able to examine a specimen of *Hartweg 1050*, the type collection of *R. brevipes*, in the Delessert Herbarium. There seems to be no reason why Bentham's name should not be referred to synonymy under *Rondeletia pubescens*.

Rondeletia subcordata, sp. nov.—Ramuli gracillimi teretes, vetustiores brunnescentes rimosi, novelli puberuli, internodiis foliis fere aequilongis vel interdum longioribus; stipulae triangulares acutae 1–1.5 mm. longae; folia opposita fere sessilia coriacea parva, petiolo 1 mm. tantum longo; lamina oblongo-ovata 10–22 mm. longa 5–10 mm. lata acuta vel subacuminata basi rotundata vel leviter cordata, supra glabra, subtus fere concolor glabra vel tantum ad costam elevatam sparse hispidula, nervis lateralibus utroque latere 4–5 inconspicuis; inflorescentiae terminales longipedunculatae umbellatim triflorae vel interdum ramosae et pluriflorae, bracteis basalibus linearibus vel lanceolatis usque ad 4 mm. longis, bracteolis subulatis 1–2 mm. longis, pedicellis 2–4 mm. longis gracilibus rectis; hypanthium subglobosum 1.5 mm. longum dense albido-tomentosum; calycis laciniae 4 anguste subulatae 3–4 mm. longae erectae pilosulae; corollae tubus gracillimus 6–7 mm. longus supra non dilatatus dense

pilis minutis reflexis sericeo-pilosulus, lobis 4 rotundatis patentibus intus glabris 1.5 mm. longis.—Dominican Republic (?): "St. Domingue," in 1851, *M. Varanne* (herb. Paris, type).

This plant agrees better with the description of the Haitian *Rondeletia domatiata* Urban than with any other species of which I have seen specimens or descriptions. That species has domatia on the lower surface of the leaves, and this has none. In *R. domatiata* the leaves are described as being merely obtuse at the base.

Rudgea alibertioides, sp. nov.—Ut videtur frutex dense ramosus, ramulis subteretibus vel ad nodos subcompressis rigidis in sicco subolivaceis densissime minute puberulis, internodiis foliis brevioribus; stipulae persistentes rotundatae 1.5–2 mm. longae puberulae mucronatae, mucrone setulis paucis pallidis usque ad 3 mm. longis marginalibus dorsalibusque onusto; folia parva subcoriacea opposita in sicco olivacea vix 2 mm. longe petiolata oblanceolato-oblonga 3.5–5 cm. longa 1–1.7 cm. lata obtusa vel acuta basin versus sensim angustata basi ipsa acuta, supra lucida glabra costa nervisque prominulis, subtus opaca paullo pallidiora, ubique minutissime puberula, costa gracili prominente, nervis lateralibus utroque latere c. 11 prominulis angulo acuto adscendentibus prope marginem junctis, nervulis prominulis laxe reticulatis; inflorescentia terminalis 1.5 cm. longe pedunculata umbellatim trichotoma, ramis 8–10 mm. longis sparse minutissime puberulis, floribus paucis capitatis arcte sessilibus bracteis hypanthio brevioribus laciniatis; hypanthium glabrum 1.5 mm. longum obconicum, calyce hypanthio paullo breviore fere ad basin 4-lobo, laciniis triangulari-ovatis obtusis vel acutiusculis; corolla extus glabra gracilis, tubo 10–12 mm. longo fauce abrupte paullo dilatato, lobis 4 subpatentibus ovato-oblongis 3–4 mm. longis obtusis; stylus filiformis 6 mm. longe exsertus.—Brazil: Without locality, *A. Glaziou 14902* (Copenhagen herbarium, type).

The collection was distributed as *Psychotria parvifolia* Muell. Arg., but the plant is clearly a species of *Rudgea*. It is related most closely to *R. celastrinea* Muell. Arg., which is glabrous throughout, and differs in several minor details.

Rudgea allophylla, sp. nov.—Ut videtur dense ramosa, ramulis vetustioribus teretibus gracilibus pallidis, novellis gracillimis minutissime puberulis, internodiis plerumque abbreviatis; stipulae persistentes in vaginam vix 1 mm. longam connatae, parte apicali 1–1.5 mm. longa in setas paucas breves deciduas divisa; folia brevissime petiolata tenuiter membranacea opposita, petiolo 1–2 mm. longo minutissime puberulo; lamina valde variabilis lanceolato-oblonga usque ad oblongo-ovata vel rotundato-ovata, 3–6.5 cm. longa, 1–4.5 cm. lata, acuta vel acuminata, basi subobtusa usque ad subcordata, supra in sicco fusco-viridis, glabra vel tantum ad venas obscure sparse puberula, venis non elevatis, subtus pallidior, ad costam

gracilem praesertim in axillis pilis longis pallidis laxis pilosa, aliter glabra, nervis lateralibus utroque latere c. 6 obliquis angulo semirecto adscendentibus gracillimis vix prominulis leviter arcuatis prope marginem conjunctis, nervulis non elevatis obscuris laxe reticulatis; inflorescentia terminalis graciliter 1.5–2 cm. longe pedunculata cymoso-corymbosa laxe multiflora 1.5–4 cm. longa et aequilata, basi trichotoma, ramis gracillimis minute puberulis, ultimis plerumque trifloris, bracteis obsoletis, flore terminali cymulae sessili, lateralibus pedicellis gracilibus puberulis usque ad 6 mm. longis stipatis; hypanthium anguste columnare minutissime puberulum 1.5 mm. longum; calyx 5-partitus, laciniis minute puberulis vel fere glabris lineari-attenuatis 2–3 mm. longis viridibus patentibus; corolla extus minute pilosula vel puberula in alabastro apice non cornuta, in anthesi 10–12 mm. longa, tubo gracili supra paullo dilatato in fauce piloso, lobis 5 lineari-lanceolatis patentibus obtusis tubo paullo longioribus; flores heterostyli, interdum stylo brevi et staminibus exsertis, interdum stylo longe exserto et staminibus inclusis.—Brazil: "Environs de Rio de Janeiro," *A. Glaziou 12771* (herb. Kew., type).

In Mueller's key to the species of *Rudgea* in the *Flora Brasiliensis*, the present plant resembles *R. eriantha* Benth. (properly *R. coriacea* Schum.), but the two plants are not closely related. *Rudgea allophylla* is noteworthy for its variable leaves, lax inflorescences, elongate calyx segments, and pubescent corollas.

Rudgea amplicalyx, sp. nov.—Frutex omnino glaber ramosus, ramulis teretibus gracilibus, vetustioribus albidis rimosis, novellis viridibus striatis, internodiis foliis plus quam duplo brevioribus; stipulae albidae primo connatae, late ovales vel rotundatae apice rotundatae dorso prope apicem setis paucis brevibus rigidis onustae; folia mediocria breviter petiolata firme membranacea, petiolo crassiusculo 2–5 mm. longo; lamina elliptica 7–10 cm. longa 2.5–4.5 cm. lata abrupte acuminata, acumine anguste triangulari 1–2 cm. longo attenuato anguste obtuso, basi cuneato-acuta, supra in sicco cinereo-viridescens costa venisque non elevatis, subtus pallide lutescens, costa gracili elevata, nervis lateralibus utroque latere c. 9 obliquis angulo acuto adscendentibus gracillimis prominentibus vix arcuatis remote a margine conjunctis, venulis prominulis arcte reticulatis; inflorescentia terminalis sessilis vel ad 8 mm. longe pedunculata, cymoso-corymbosa laxe multiflora 4–5 cm. longa et aequilata vel paullo latior, basi trichotoma, ramis quoque trichotomis, ramulis cymula triflora terminatis, bracteis minutis subulatis, pedicellis gracilibus 5–8 mm. longis; hypanthium clavatum 1.5 mm. longum; calyx 3–6 mm. longus campanulatus ut videtur coloratus fere ad medium lobatus, laciniis oblongo-lanceolatis acuminatis erectis; corolla extus glabra, tubo crasso 6 mm. longo fauce dense villoso, lobis aequilongis lineari-oblongis patentibus vel reflexis intus minute puberulis; stylus filiformis longe exsertus.—Brazil: Prov. Espiritu Santo, 1816–21, *Auguste de Saint-Hilaire 332* (herb. Paris, type).

Although decidedly ordinary in general appearance, the plant is unusual in the large and well-developed calyx, which is almost corolloid in appearance.

Rudgea angustissima, sp. nov.—Frutex 3–3.5 m. altus, ramis gracilibus rigidis subteretibus et plus minusve striatis, novellis minute pilis patentibus pilosis; stipulae 5–6 mm. longae profunde in lacinias subulatas paucas lobatae pilosulae persistentes; folia breviter petiolata firme membranacea, petiolo gracili 4–5 mm. longo pilosulo; lamina lineari-oblonga vel angustissime lanceolata 9–11 cm. longa 15–18 mm. lata apicem versus longe attenuata basi acuta vel basin versus sensim attenuata supra in sicco opaca fusco-viridis vel luteo-viridis glabra, subtus sparse vel ad costam densius minute puberula, costa gracili elevata, nervis lateralibus utroque latere c. 9 prominulis angulo semirecto adscendentibus, nervulis vix prominulis laxe reticulatis; inflorescentia terminalis parva cymoso-paniculata 1.5 cm. longe pedunculata c. 1 cm. longa et fere aequilata, ramis crassis brevibus dense hirtellis, bracteis minutis obscuris, floribus paucis aggregatis sessilibus; hypanthium crassum fere 1 mm. longum glabratum, calyce brevissimo obscure remote repando-denticulato; corolla in alabastro vix evoluta extus glabra; cetera ignota.—Peru: Puerto Bermúdez, Dept. Junín, 375 meters, in dense forest, July, 1929, *E. P. Killip & A. C. Smith 26459* (herb. Field Mus. No. 632,756, type).

The species is unusual in its extremely narrow leaves.

Rudgea bogotensis, sp. nov.—Glabra, ramulis gracilibus teretibus, vetustioribus ochraceis rimosis, novellis fuscis, internodiis brevibus; stipulae persistentes late oblongae vel ellipticae breviter connatae crassae erectae obtusae subcostatae, margine prope apicem setulis paucis 1–1.5 mm. longis valde incrassatis obtusiusculis onusto; folia mediocria breviter petiolata opposita crasse membranacea, petiolo gracili 4–7 mm. longo; lamina elliptico-oblonga vel oblanceolato-oblonga 11–14 cm. longa 3.5–6 cm. lata abrupte longi-acuminata, acumine angusto longe attenuato, basin versus longe angustata, supra in sicco fusco-viridis, sublucida, costa venisque vix elevatis, subtus pallidior, costa gracili elevata, nervis lateralibus utroque latere c. 9 gracilibus prominentibus obliquis angulo semirecto adscendentibus subarcuatis vel fere rectis prope marginem conjunctis vel interdum in marginem desinentibus, nervulis prominulis arcte reticulatis; inflorescentia terminalis graciliter pedunculata cymoso-corymbosa 3 cm. longa laxe pauciflora, ramis gracilibus valde adscendentibus vel suberectis, bracteis minutis vel obsoletis, floribus in cymulas trifloras dispositis, flore terminali arcte sessili, lateralibus 3–4 mm. longe pedicellatis; hypanthium obovoideum 0.8 mm. longo, calyce latissime campanulato 1–1.5 mm. longo truncato 1.6 mm. lato; corolla ante anthesin 8 mm. longa apice rotundata ecornuta, tubo supra paullo dilatato, lobis oblongis obtusis tubo subaequilongis.—Colombia: Tunca, Prov. Bogotá, alt. 1,400 meters, 1851–57, *J. Triana 1721* (herb. Paris, type).

Although it has no special distinguishing characters, the plant is altogether distinct from the Rudgeas reported previously from Colombia.

Rudgea calophylla, sp. nov.—Arbuscula 2-metralis dichotome ramosa floribus exceptis omnino glabra, ramulis gracilibus rigidis teretibus vel subcompressis olivaceis, internodiis elongatis; stipulae 2–3 mm. longae incrassatae late ovatae persistentes acutiusculae dorso prope apicem setis paucis brevibus pallidis crassis congestis onustae; folia sessilia vel crasse 1–2 mm. longe petiolata opposita tenuiter coriacea; lamina oblongo-lanceolata 8–14 cm. longa 2–5.5 cm. lata longissime attenuato-acuminata versus basin paullo breviter angustata, basi ipsa rotundata vel interdum subcordata, supra in sicco luteo-viridis, sublucida, costa valde elevata, venis prominentibus, nervulis prominulis, subtus paullo pallidior, costa gracili valde elevata, nervis lateralibus utroque latere c. 11 obliquis angulo semirecto adscendentibus elevatis gracilibus subcurvis juxta marginem conjunctis, nervulis prominentibus arcte reticulatis; inflorescentia terminalis sessilis vel crasse 5 mm. longe pedunculata capituliformi-contracta dense pauci- vel multiflora 8–14 mm. lata, floribus confertis sessilibus, bracteis late triangularibus c. 0.6 mm. longis acutis persistentibus; hypanthium late obconicum 1 mm. longum glabrum vel obsolete puberulum, calyce 1.2 mm. longo late campanulato subtruncato vel obsolete undulato-dentato minutissime puberulo vel glabrato; corolla in alabastro ut videtur valde immatura 3–3.5 mm. longa apice late rotundata ecornuta extus dense minute pulverulaceo-puberula eburnea.—Brazil: Ad ripas fluminis Uaupes, prope Panure, December, 1852, *R. Spruce 2711* (herb. Kew., type).

A species of doubtful affinity, noteworthy for its sessile, narrow, unusually long-acuminate leaves, and for the small, dense, headlike, few-flowered inflorescence.

Rudgea cornifolia (H. & B.) Standl. Field Mus. Bot. 7: 432. 1931. *Psychotria cornifolia* H. & B. apud R. & S. Syst. 5: 191. 1819. *P. fimbriata* Benth. in Hook. Journ. Bot. 3: 226. 1841. *R. fimbriata* Standl. in Standl. & Cald. Lista Pl. Salv. 274. 1920. *P. articulicymosa* Wernham, Journ. Bot. 55: 253. 1917.

In the *Rubiaceae of Colombia, Psychotria articulicymosa* was listed as a valid species. I find, however, that the type collection, *Triana 1692,* was listed quite properly under *Rudgea fimbriata,* i.e. *R. cornifolia,* of which Wernham's *Psychotria* is clearly a synonym. The following additional collection of the species may be placed on record: Colombia: Fusagasugá to Pandi, *Goudot 3* (herb. Paris).

Rudgea cryptantha, sp. nov.—Frutex omnino glaber, ramulis gracilibus rectis vel flexuosis teretibus viridibus, internodiis elongatis

vel abbreviatis; stipulae persistentes erectae late obovatae 12–14 mm. longae virides vel pallide olivaceae apice lato breviter laciniato-dentatae, laciniis numerosis 1–2 mm. longis pallide setoso-apiculatis; folia mediocria breviter petiolata opposita membranacea, petiolo 2–5 mm. longo supra sulcato; lamina anguste lanceolato-oblonga 8–12.5 cm. longa 2–3.5 cm. lata longissime attenuato-acuminata, acumine angustissimo saepe subfalcato, basi acuta vel obtusa, supra in sicco cinereo-viridis, costa prominente, venis prominulis, subtus fere concolor, in axillis venarum excavata, costa gracili elevata, nervis lateralibus utroque latere c. 7 obliquis gracilibus prominentibus angulo semirecto adscendentibus subcurvis prope marginem conjunctis, nervulis prominulis arcte reticulatis; flores terminales sessiles fasciculati pauci stipulis 2 magnis involucrati; hypanthium obovoideum 1 mm. longum, calyce campanulato 2.5 mm. longo pallido obsolete undulato-dentato; corolla in alabastro apice obtusa ecornuta, tubo crasso 12 mm. longo 2 mm. lato supra vix dilatato, lobis 5 oblongis apiculatis 5–6 mm. longis patentibus intus glabris; antherae inclusae; stylus dense puberulus 4 mm. longe exsertus.—Peru: San Antonio, Alto Río Itaya, Dept. Loreto, alt. 145 meters, October 9, 1929, *Llewelyn Williams 3521* (herb. Field Mus. No. 621,600, type).

The plant is unique in its sessile involucrate flowers, and the large, laciniate-dentate stipules also are distinctive.

Rudgea Duckei, sp. nov.—Arbor parva omnino glabra, ramulis sat gracilibus rigidis teretibus fuscis; stipulae breviter connatae 3–4 mm. longae triangulari-rotundatae obtusae apice breviter productae et setis paucis brevibus deciduis incrassatis onustae; folia breviter petiolata opposita subcoriacea, petiolo crassiusculo 6–9 mm. longo; lamina anguste oblonga 11.5–18 cm. longa 3–5 cm. lata, longe anguste attenuato-acuminata, basi acuta, supra in sicco fusco-viridis vel subflavescens, sublucida, costa subimpressa, venis manifestis sed non elevatis, subtus fere concolor, costa gracili elevata, nervis lateralibus utroque latere c. 8 gracilibus prominulis obliquis angulo latiusculo adscendentibus inaequalibus ante marginem conjunctis, nervulis prominulis laxe reticulatis; inflorescentia terminalis cymoso-corymbosa crasse 8 mm. longe pedunculata, corollis neglectis 2.5 cm. longa et 4 cm. lata, dense multiflora, ramis infimis verticillatis adscendentibus dichotomis, floribus sessilibus ad apices ramorum dense congestis, bracteis persistentibus triangulari-acuminatis vix 1 mm. longis basi saepe bidentatis; hypanthium obconicum 1 mm. longum, calyce fere 1 mm. longo 5-partito, laciniis oblongis obtusis minute ciliolatis; corolla alba in alabastro obtusa ecornuta, tubo gracillimo 3.5 cm. longo fere 2 mm. lato supra non dilatato fauce glabro, lobis 5 anguste oblongis attenuato-obtusis 5 mm. longis intus glabris patentibus; stylus capillaris glaber; bacca ovalis 8–13 mm. longa basi et apice rotundata.—Brazil: In silvis non inundatis prope fluminem Aramá, in regione Breves aestuarii amazonici, State of Pará, November 29, 1922, *A. Ducke 18831* (herb. Berol., type).

In corolla size and form the plant suggests *Rudgea graciliflora* Standl., of the same region, but the latter has longer flowers, small, thin leaves, and a greatly reduced inflorescence, besides differing in calyx structure.

Rudgea fascigera, sp. nov.—Ramuli vetustiores subteretes ochracei plus minusve striati, novellis dense pilis adscendentibus brunnescentibus hispido-pilosis, internodiis abbreviatis vel elongatis; stipulae in vaginam 1.5–2 mm. longam hispidulam induratam connatae, vagina inter folia fasciculis 2 setarum paucarum rigidarum 5 mm. longarum erectarum onusta; folia breviter petiolata membranacea opposita, petiolo gracili 3–8 mm. longo hispidulo; lamina oblanceolato-oblonga vel anguste elliptico-oblonga, saepius paullo supra medium latissima, abrupte acuta vel acuminata, acumine triangulari vel anguste triangulari et longe attenuato, basi acuta vel basin versus longius angustata, supra in sicco fusco-viridis, glabra, costa venisque non vel vix elevatis, subtus fere concolor, saepe brunnescens, ad venas laxe breviter villosula, aliter obscure puberula vel glabrata, costa gracili elevata, nervis lateralibus utroque latere c. 9 obliquis angulo semirecto adscendentibus gracilibus prominentibus leviter curvis marginem attingentibus nervulis vix prominulis numerosissimis fere rectis et horizontalibus crebre parallelis; inflorescentia terminalis 1.5–2 cm. longe pedunculata erecta anguste thyrsoideo-paniculata dense multiflora 1.5–4 cm. longa 1–2.5 cm. lata ramis verticillatis vel alternis patentibus crassiusculis dense brunneo-pilosulis, floribus ad apices ramorum dense congestis sessilibus vel rarius in cymulas laxiusculas dispositis, bracteis persistentibus lineari-subulatis patentibus vel subreflexis dense sordido-puberulis plerumque 2–3 mm. longis; hypanthium puberulum 0.5 mm. longum, calyce 5-partito, vix 0.3 mm. longo, lobis minutis ovato-triangularibus obtusis; corolla minute puberula 4 mm. longa in alabastro apice 5-corniculata, appendicibus gracilibus radiatim patentibus, tubo in fauce non barbato, lobis oblongis patentibus obtusis tubo triplo brevioribus; antherae breviter exsertae lineares 1.2 mm. longae erectae.—Brazil: Province de Espirito Santo, 1816–21, *Auguste de Saint-Hilaire B.335* (herb. Paris, type). Engenheiro Reeve, Espirito Santo, 500 meters, in 1903, *A. Robert* (herb. Kew.).

The relationship of this well-marked species is not clearly apparent. The plant is noteworthy for the form of the stipules, the abundant pubescence, and the narrow, thyrsoid inflorescence with minute flowers.

Rudgea Glaziovii Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 217. 1881.

Brazil: Prov. Rio de Janeiro, 1816–21, *Saint-Hilaire C.4* (herb. Paris).

Rudgea graciliflora, sp. nov.—Frutex parvus, ramulis gracilibus teretibus, vetustioribus ochraceis, novellis fusco-olivaceis minu-

tissime puberulis, internodiis brevibus; stipulae 2–2.5 mm. longae persistentes erectae e basi rotundata breviter mucronatae et apice dense brevissime setulosae, setis pallidis deciduis; folia breviter petiolata parva opposita membranacea, petiolo gracili 4–6 mm. longo minutissime puberulo vel fere glabro; lamina oblonga 5.5–9 cm. longa 2–2.5 cm. lata subabrupte longe caudato-acuminata, acumine angusto usque ad 1.5 cm. longo acuto vel obtuso attenuato, basi acuta, glabra, supra fusco-viridis, costa venisque non elevatis, subtus paullo pallidior, costa gracili elevata, nervis lateralibus utroque latere c. 6 tenerrimis prominentibus inaequalibus angulo semirecto adscendentibus obliquis fere rectis remote a margine conjunctis, nervulis prominulis subarcte reticulatis; inflorescentia terminalis crasse 2.5 mm. longe pedunculata capituliformi-contracta dense pauciflora corollis neglectis 6 mm. longa, floribus simpliciter racemose dispositis, pedicellis crassis usque ad 3 mm. longis minute puberulis, bracteis obsoletis; hypanthium fere microscopice puberulum 1 mm. longum, calyce vix 0.5 mm. longo obscure latissime denticulato; corolla alba in alabastro apice obtusa ecornuta extus glabra vel sparse et minutissime puberula, tubo gracillimo 4.8 cm. longo 1.5 mm. lato supra non dilatato fauce non barbato, lobis oblongis attenuato-obtusis intus glabris patentibus 4 mm. longis; filamenta 4–5 mm. longe exserta, antheris lineari-oblongis fere 2 mm. longis.—Brazil: In silvis non inundatis prope fluminem Macujirbim, regione Breves aestuarii amazonici, State of Pará, January 17, 1920, *A. Ducke 15358* (herb. Berol., type).

A striking plant because of the exceptionally long and slender corollas.

Rudgea justicioides Standl. Field Mus. Bot. 8: 229. 1930.

The species was based upon material from the Department of Loreto in eastern Peru. The following Brazilian collection has come to hand recently: Brazil: São Braz, Rio Purus, in forest, September, 1874, *J. W. H. Traill 432* (herb. Kew.); flowers white.

Rudgea Langsdorffii Muell. Arg. in Mart. Fl. Bras. 6, pt. 5: 191. 1881.

Brazil: Piassaguera, São Paulo, September, 1902, *A. Puttemans 11884* (herb. Berol.); a tree; flowers white. Corcovado, Rio de Janeiro, *Miers 3905* (herb. Kew.).

Rudgea longipes, sp. nov.—Praeter inflorescentiam omnino glabra, ramulis teretibus gracilibus, vetustioribus brunnescentibus, novellis olivaceis, internodiis elongatis; stipulae in vaginam erectam 2–3 mm. longam connatae, vagina subtruncata prope basin fasciculo denso setarum brevium incrassatarum onusta; folia breviter petiolata subcoriacea opposita, petiolo crassiusculo 4–10 mm. longo; lamina anguste oblanceolato-oblonga vel rarius anguste elliptico-oblonga 7.5–12.5 cm. longa 2–4.5 cm. lata acuta vel rarius abrupte breviacuminata, basin versus longe anguste sensim attenuata, supra

in sicco flavo-viridis, costa venisque prominentibus, sublucida, subtus paullo pallidior, costa gracili elevata, nervis lateralibus utroque latere c. 9 gracilibus inaequalibus angulo recto vel paullo latiore adscendentibus obliquis prominentibus subarcuatis prope marginem conjunctis, nervulis prominulis laxe reticulatis; inflorescentia terminalis 3–4 cm. longe pedunculata erecta capitato-contracta 1–3 cm. lata densa pauci- vel multiflora, ramis paucis densifloris usque ad 5 mm. longis validis sparse minutissime puberulis vel fere omnino glabris, bracteis late triangularibus acutis c. 0.5 mm. longis, floribus sessilibus vel brevissime pedicellatis; hypanthium oblongo-turbinatum 1 mm. longum minutissime puberulum, calyce 0.6 mm. longo ad medium 5-lobo, lobis latis subrotundatis, disco tumido calycem fere aequante; corolla 7–8 mm. longa extus minutissime puberula vel fere glabra in alabastro apice rotundata ecornuta, tubo crassiusculo supra vix dilatato, lobis 5 oblongis obtusis patentibus vel subrecurvis tubo duplo brevioribus; filamenta exserta, antheris lineari-oblongis 2 mm. longis.—Brazil: Olho de Agoa, Province de Minas Geraes, 1816–21, *Auguste de Saint-Hilaire* (herb. Paris, type).

The species most closely related is *Rudgea ochroleuca* Muell. Arg., which differs in its short-pedunculate inflorescence, somewhat broader leaves, and short-corniculate corolla lobes.

Rudgea minor (Cham.), comb. nov. *Coffea minor* Cham. Linnaea 9: 227. 1834. *Rudgea Clausseniana* Benth. Linnaea 23: 461. 1850.

Rudgea mouririoides, sp. nov.—Floribus exceptis omnino glabra; ramuli graciles recti vel plus minusve flexuosi teretes ochracei vel pallide virides, internodiis elongatis; stipulae persistentes incrassatae in vaginam 4–5 mm. longam connatae apice setis paucis rigidis erectis persistentibus 5–9 mm. longis onustae; folia subsessilia opposita subcoriacea, petiolo crasso vix 2–3 mm. longo; lamina oblonga vel elliptico-oblonga 8–18.5 cm. longa 3.5–7.5 cm. lata apice acuta vel breviter abrupte acuminata, acumine triangulari acuto rare attenuato, basi late rotundata et breviter cordata, supra in sicco cinereo-viridis vel lutescenti-viridis, costa venisque prominulis, subtus pallidior, costa gracili elevata, nervis lateralibus utroque latere c. 13 gracilibus prominentibus angulo fere recto divergentibus prope marginem pallidum incrassatum conjunctis, nervulis prominulis laxe reticulatis; inflorescentia terminalis sessilis cymoso-corymbosa sed capituliformi-contracta c. 1. cm. longa et 2.5 cm. lata dense multiflora, ramis crassis minutissime puberulis vel glabratis brevibus, floribus sessilibus ad apices ramorum dense congestis, bracteis minutis vel obsoletis; hypanthium obovoideum minute puberulum fere 1 mm. longum, calyce 0.5 mm. longo 5-partito, laciniis inaequalibus oblongis vel ovalibus obtusis ciliolatis; corolla extus sparse minute puberula vel fere glabra in alabastro apice late obtusa ecornuta, tubo cylindraceo 3.5–4 mm. longo fauce dense barbato, lobis 5 oblongis patentibus vel recurvis obtusis tubo duplo brevioribus intus supra basin glabris; antherae inclusae; stylus longiuscule

exsertus.—Brazil: Bahia, *Blanchet 89* (herb. Paris, type). Bahia, *Blanchet 2313* (herb. Paris).

Rudgea obesiflora, sp. nov.—Arbuscula 5-metralis, trunco 6.5 cm. diam., omnino glabra, ramulis crassiusculis, vetustioribus pallidis, internodiis brevibus vel elongatis; stipulae subpersistentes pallidae 12–15 mm. longae late oblongae vel oblongo-cuneatae apice breviter multilaciniatae; folia breviter petiolata mediocria vel parva crasse membranacea, petiolo 5–7 mm. longo; lamina elliptico-oblonga vel lanceolato-oblonga 9–12.5 cm. longa 3–5 cm. lata longe anguste acuminata, acumine attenuato acuto, basi acuta vel acuminata, in sicco cinereo-viridis, supra opaca costa prominente, venis vix prominulis, subtus paullo pallidior, costa gracili elevata, nervis lateralibus utroque latere c. 8 in axillis foveolatis angulo semirecto adscendentibus elevatis arcuatis prope marginem junctis, nervulis prominulis laxe reticulatis; inflorescentia terminalis 2–2.5 cm. longe pedunculata erecta trichotoma, ramis viridibus teretibus vel subcompressis c. 1 cm. longis apice 1–3-floris, floribus arcte sessilibus, bracteis minutis vel obsoletis; hypanthium anguste turbinatum 4–5 mm. longum; calyx subrotatus 4 mm. altus 7–8 mm. latus truncatus; corolla alba in alabastro apice obtusa et 5-corniculata, tubo crassissimo 10–12 mm. longo ad faucem 8 mm. lato basin versus vix angustiore, lobis late triangulari-ovatis obtusis 5–6 mm. longis intus glabris; antherae breviter exsertae lineares 6 mm. longae, filamentis filiformibus.—Peru: Upper Marañón, mouth of Río Santiago, upland forest, alt. 160 meters, September 18, 1924, *G. Tessmann 4070* (herb. Berol., type).

Among the rather numerous Peruvian species of *Rudgea*, this may be recognized immediately by the curious broad corollas, which are almost unique in the whole genus. The large pale narrow stipules also are distinctive, as well as the extraordinarily broad, saucer-shaped calyx.

Rudgea obtusa, sp. nov.—Arbuscula omnino glabra, ramulis crassiusculis teretibus, vetustioribus cinereo-ochraceis, novellis fusco-brunneis, internodiis abbreviatis; stipulae in vaginam 2–2.5 mm. longam incrassatam connatae late rotundatae apice 1.5 mm. longe subulato-mucronatae, margine setis paucis brevissimis deciduis onusto; folia brevissime petiolata opposita crasse coriacea, petiolo crasso 2–3 mm. longo; lamina oblonga vel anguste oblonga 6–10.5 cm. longa 2–4.5 cm. lata obtusa vel acutiuscula, interdum rotundata et brevissime apiculata, basi obtusa usque ad subcordata, supra lucida, brunnescens vel flavo-viridis, costa venisque manifestis sed vix elevatis, subtus paullo pallidior, costa gracili elevata, nervis lateralibus utroque latere c. 6 vix prominulis gracilibus angulo semirecto adscendentibus obliquis vix conjunctis, nervulis plerumque obsoletis; inflorescentia terminalis crasse 8–12 mm. longe pedunculata erecta cymoso-corymbosa trichotoma corollis exclusis 1.5–2 cm. longa et usque ad 4 cm. lata, ramis crassis fuscis simplicibus et

apice dense pauci- vel multifloris vel prope apicem pauciramosis, bracteis brevissimis margine brevissime setulosis, floribus arcte sessilibus confertis; hypanthium 1.5 mm. longum columnare, calyce fere aequilongo 2 mm. lato margine brevissime inaequaliter acute denticulato; corolla alba magna in alabastro apice late rotundata ecornuta, tubo gracillimo 5.5–8.5 cm. longo 1.5–2.2 mm. lato supra non dilatato fauce non barbato, lobis anguste oblongis 13–14 mm. longis versus apicem obtusum paullo angustatis patentibus intus glabris; filamenta 1 cm. longe exserta, antheris linearibus 4 mm. longis recurvis; stylus inclusus capillaris glaber; baccae ovales vel late ellipticae 8–10 mm. longae basi et apice rotundatae fere laeves.—Brazil: Rio Arinos, Matto Grosso, December, 1914, *J. G. Kuhlmann 1484. K* (herb. Berol., type). Santa Anna da Chapada, Matto Grosso, 1903, *A. Robert 572b* (herb. Kew.).

A striking plant because of the combination of leathery, chiefly obtuse leaves and unusually elongate flowers.

Rudgea palicoureoides (Mart.) Muell. Arg. Flora 59: 455. 1876. *Psychotria palicoureoides* Mart. Flora 24, pt. 2: Beibl. 64. 1841.

The type, collected by Martius somewhere in eastern Brazil, is represented in the herbarium of Field Museum by a photograph. The following specimens are conspecific:

Brazil: Cuyabá, Matto Grosso, in silvula ripae rivi, November 21, 1902, *Malme 2631* (herb. Stockholm); an arborescent shrub 2–3 meters high; flowers dimorphous, the corolla white. Cuyabá, November 28, 1902, *Malme* (S).

In some specimens the leaves are as much as 21 cm. long and 10.5 cm. wide. They are lustrous and of a handsome yellowish green.

Rudgea recurva Muell. Arg. Flora 59: 456. 1876.

Brazil: Without locality, *Sello* (herb. Kew.; probably the type collection). Organ Mountains, Rio de Janeiro, January, 1838, *Miers 4119* (K, herb. Par.). Prov. Rio de Janeiro, in 1841, *Miers 4119* (K), *4116* (K). Santa Catharina, *F. Mueller 452* (K), *368* (K).

Rudgea Saint-Hilairei, sp. nov.—Corollis exceptis omnino glabra, ramulis gracilibus teretibus, junioribus brunneis, internodiis elongatis interdum foliis aequilongis; stipulae persistentes incrassatae in vaginam subtruncatam connatae prope basin setis paucis dense congestis brevissimis deciduis onustae; folia brevissime petiolata opposita subcoriacea vel crasse membranacea, petiolo crasso 2–4 mm. longo; lamina oblonga usque ad oblongo-elliptica 6.5–11.5 cm. longa 2–5 cm. lata acuta vel subabrupte breviter acuminata basi obtusa vel anguste rotundata, supra in sicco cinereo- vel luteo-viridis, costa venisque prominulis, subtus pallidior, plus minusve brunnescens, costa gracili elevata, nervis lateralibus utroque latere c. 9 prominulis gracilibus angulo semirecto vel saepius latiore adscen-

dentibus arcuatis juxta marginem conjunctis vel in marginem desinentibus, nervulis obscuris; inflorescentia terminalis corymbosa et capituliformi-contracta basi acuta 5–8 mm. longe pedunculata erecta densissime multiflora c. 1.5 cm. longa et 2 cm. lata, ramis primariis verticillatis suberectis crassis brevissimis, ramis omnibus basi conspicue bracteatis, bracteis late ovatis obtusis c. 1 mm. longis persistentibus, floribus congestis sessilibus; hypanthium 1 mm. longum, calyce late campanulato 1–1.2 mm. longo subtruncato vel breviter undulato-dentato; corolla extus minutissime puberula in alabastro apice rotundata ecornuta, tubo crassiusculo 4–5 mm. longo supra vix dilatato fauce non barbato, lobis 4 late triangulari-oblongis obtusis vel acutiusculis patentibus intus glabris 2–2.5 mm. longis; antherae semiexsertae; stylus inclusus.—Brazil: Province de Espirito Santo, 1816–21, *Auguste de Saint-Hilaire B.351* (herb. Paris, type), *B.366* (herb. Paris).

Notable for the rather large and thick, nearly sessile leaves, and for the small and exceedingly dense, flat-topped inflorescence.

Rudgea sororia, sp. nov.—Frutex 2-metralis omnino glaber, ramulis rigidis teretibus viridibus, internodiis elongatis; stipulae magnae persistentes distinctae late oblongae vel obovatae 10–15 mm. longae primo virides serius incrassatae et pallidae crebre striato-nerviae profunde multilaciniatae; folia fere sessilia opposita crasse papyracea, petiolo crassiusculo 2–4 mm. longo; lamina oblonga 12–15 cm. longa 4.5 cm. lata longe anguste attenuato-acuminata basi acuta vel subobtusa, supra in sicco cinereo-viridis, costa elevata, venis prominulis, subtus fere concolor, costa gracili elevata, nervis lateralibus utroque latere c. 9 obliquis angulo semi-recto adscendentibus gracilibus prominentibus fere rectis vel subcurvis remote a margine conjunctis; inflorescentia terminalis c. 13 mm. longe pedunculata cymoso-corymbosa 3–3.5 cm. longa et aequilata, ramis brevibus, infimis verticillatis, floribus in cymulas plerumque trifloras dispositis, flore terminali sessili, lateralibus usque ad 6 mm. longe pedicellatis, pedicellis fructiferis rigidis; bacca globosa 7–8 mm. longa basi et apice rotundata fere laevis, calyce persistente coronata; calyx corolloideus magnus campanulatus 12 mm. longus et 8 mm. latus basi obtusus, dentibus 5 triangularibus acutis 3 mm. longis erectis; corolla alba in alabastro linearis 15 mm. longa apice obtusa ecornuta; semina 2 hemisphaerica 5 mm. longa; calyx fructifer usque ad 18 mm. longus.—Peru: In forest, Mishuyacu, near Iquitos, Dept. Loreto, alt. 100 meters, May–June, 1930, *G. Klug 1310* (herb. Field Mus. No. 622,234, type).

This Amazonian plant belongs to Mueller's section *Carpanthus,* of which only a single species has been listed. The section is characterized by its large corolloid calyx, this being persistent and accrescent in fruit. *Rudgea bacciflora* Muell. Arg., the typical species of the section, was described from Brazil, the region being unknown. It differs from *R. sororia* in having a fruiting calyx only 8 mm. long.

Rudgea stenophylla (Krause), comb. nov. *Palicourea stenophylla* Krause, Bot. Jahrb. 40: 338. 1908.

Examination of a photograph and fragment of the type (*Weberbauer 4548* from Moyobamba, Peru) shows clearly that this plant is a *Rudgea* rather than a *Palicourea*. It is closely related to *R. microcarpa* (R. & P.) Standl.

Rudgea canephorantha (Wernham), comb. nov. *Psychotria canephorantha* Wernham, Journ. Bot. 55: 338. 1917.

This plant, if one may rely upon the form of the stipules, is properly referable to *Rudgea*. As in other species of the genus, the thickened setae are deciduous at an early stage of development, and probably were not seen by Wernham, although they are conspicuous enough on some of the recent collections made in Peru.

Rudgea Traillii, sp. nov.—Arbuscula omnino glabra, ramulis gracilibus teretibus, novellis olivaceis, internodiis elongatis; stipulae persistentes crassae olivaceae in vaginam subtruncatam vel breviter bilobam 2.5 mm. longam connatae, lobis dorso infra apicem setis paucis fasciculatis pallidis 1–1.5 mm. longis onustis; folia mediocria arcte sessilia crasse membranacea oblongo-ovata vel lanceolato-oblonga 9–11.5 cm. longa 3.5–5.5 cm. lata longe sensim attenuato-acuminata basi obtusa vel late rotundata, supra in sicco pallide olivacea, costa venisque non elevatis, subtus paullo pallidior, costa gracili elevata, nervis lateralibus utroque latere c. 9 gracillimis prominentibus angulo latiusculo interdum fere recto abeuntibus fere rectis prope marginem conjunctis, nervulis prominulis inconspicuis arcte reticulatis; flores terminales sessiles capitati pauci exinvolucrati; hypanthium 1 mm. longum, calyce late campanulato 2 mm. longo brevissime et latissime lobulato, lobis late rotundatis vel subtruncatis; corolla immatura calyce vix longior apice rotundata ecornuta; bacca ovalis 9 mm. longa 7 mm. lata basi et apice rotundata.—Brazil: Porto Salvo, Rio Purus, upper Amazon, October 4, 1874, *J. W. H. Traill 424* (herb. Kew., type).

Belonging to the group of species characterized by small, sessile, capitate inflorescences. Remarkable for the sessile leaves, broad at the base and long-attenuate toward the apex.

Rudgea Trianae, sp. nov.—Ramuli crassiusculi subteretes fusco-brunnei glabri, internodiis valde elongatis; stipulae magnae persistentes late oblongae vel ellipticae subliberae erectae c. 1.5 cm. longae crebre striato-striatae glabrae prope apicem profunde laciniatae, laciniis rigidis saepe pallidis; folia magna breviter petiolata crasse coriacea opposita, petiolo crasso 8–12 mm. longo; lamina elliptico-oblonga, interdum supra medium paullo latissima, 17–19 cm. longa 6–7.5 cm. lata subabrupte acuta vel breviter acuminata, acumine obtusiusculo, basin versus breviter angustata, supra in sicco fusca vel fusco-viridis, costa non vel vix elevata, subtus brun-

nescens, glabra, costa gracili elevata, nervis lateralibus utroque latere c. 10 gracilibus prominentibus angulo latiusculo adscendentibus obliquis leviter curvis prope marginem saepe revolutum conjunctis, nervulis obscuris vix prominulis laxe reticulatis; inflorescentia terminalis erecta crasse 4 cm. longe pedunculata cymoso-paniculata c. 7 cm. longa et 4.5 cm. lata dense multiflora basi trichotoma, ramis superioribus subverticillatis crassis compressis sparse puberulis, bracteis basilaribus oblongis acutis 1.5 cm. longis, superioribus interdum fere 2 cm. longis oblongo-linearibus acutis vel acuminatis patentibus crassis ciliatis, floribus sessilibus vel subsessilibus dense cymoso-congestis; hypanthium obconicum 1 mm. longum glabratum, calyce 5-partito, laciniis linearibus vel lanceolato-linearibus attenuatis 2.5–3.5 mm. longis dense ciliatis adscendentibus; cetera ignota.—Colombia: Provincia de Barbacoas, 1851–57, *J. Triana 1713* (herb. Paris, type).

This plant I have referred to the genus *Rudgea* because of the form of its stipules, which would exclude it from other related groups. Otherwise it bears no close resemblance to any *Rudgea* which I have seen. It is noteworthy particularly for the numerous large bracts of the inflorescence.

A second collection of this species has appeared in a recent collection from Colombia: Quibdó, Río Atrato, Intendencia del Chocó, 60 meters, April–May, 1931, *W. A. Archer 1921*. A slender shrub 3 meters high; flowers white; fruiting spike gray, the fruit the color of partially ripe tomatoes.

Rudgea viburnoides (Cham.) Benth. var. **latifolia,** var. nov.—Folia firme coriacea brevissime crasse petiolata, lamina orbiculari late ovali vel ovato-rotundata 8–12 cm. longa et fere aequilata apice late rotundata vel subtruncata basi rotundata vel truncata; ceteris formae typicae omnino similis.—Brazil: Cuiabá, Matto Grosso, October, 1914, *J. G. Kuhlmann 1531* (herb. Inst. Biol. S. Paulo No. 11654, type; fragm. in herb. Field Mus.). São Luiz de Caceres, Matto Grosso, in "cerrado," a shrub 2–4 meters high, with white flowers, September, 1911, *F. C. Hoehne 4494* (herb. S. Paulo No. 11652).

The plant is a striking variant from the typical form, which has much narrower leaves. In other respects the Matto Grosso plant does not appear to differ from the usual, widely distributed form.

Sabicea amazonensis Wernham, Monogr. Sabicea 47. 1914.

The species was described by Wernham from Amazonian Brazil and Venezuela, and has not been known from any other country until its range was extended by the following collection: Peru: Florida, Río Putumayo, Dept. Loreto, 200 meters, in forest, *Klug 2085*. A vine; corolla white.

Sabicea reflexa, sp. nov.—Scandens, ramulis teretibus fusco-ferrugineis dense strigosis, internodiis foliis brevioribus; sepala rotundato-ovata glabrata obtusa 4 mm. longa cito reflexa; folia graciliter petiolata firme membranacea, petiolo 13–15 mm. longo strigoso; lamina ovato-oblonga vel lanceolato-oblonga 7.5–10 cm. longa 3–4 cm. lata obtuse acuminata basi acuta vel abrupte contracta, supra olivacea ad venas sparse strigosa aliter glabra, subtus fere concolor, tantum ad venas fulvo-strigosa, nervis prominentibus utroque latere 6–7 leviter arcuatis; inflorescentiae axillares 4–7 mm. longe pedunculatae, primo compactae, serius laxiores, multiflorae, corollis exclusis 1–2 cm. latis, bracteis basalibus stipulis conformibus 3–4 mm. longis subdistinctis patentibus vel reflexis, ceteris reductis et inconspicuis, pedicellis 1–2 mm. longis; hypanthium obovoideo-globosum 2 mm. longum dense strigosum; calyx 2–2.5 mm. longus glabratus, parte inferiore campanulata, ad medium 5-lobus, lobis late ovato-deltoideis in sicco ferrugineis mox recurvis obtusis; corolla alba extus dense fulvo-strigosa, tubo 6–7 mm. longo supra paullo dilatato, lobis acutiusculis lanceolato-ovatis 2 mm. longis apice barbatis.—Colombia: Umbría, Comisaría del Putumayo, alt. 325 meters, in forest, October–November, 1930, *G. Klug 1782* (herb. Field Mus. No. 641,425, type).

The relationship of the plant is with *Sabicea asperula* Wernham and *S. paraensis* Wernham, but both those species differ in having linear or setaceous calyx lobes. *S. reflexa* is well marked by its unusually broad and strongly reflexed or recurved calyx lobes.

Schenckia blumenaviensis Schum. var. **macrocarpa,** var. nov.—A forma typica foliis minus pubescentibus capsula majore angustiore 8–9 mm. longa glabrata paullo recedit.—Brazil: Porto Alegre, Rio Grande do Sul, in silvula umbrosa, March 3, 1902, *G. O. A. Malme 1444* (herb. Stockholm, type).

In the typical form of the species the rather smaller leaves are much more copiously pubescent, and the relatively broader capsule is only 5–6 mm. long. There appear to be no other differences between the two forms.

Of typical *S. blumenaviensis* the following collections have been examined: Brazil: Blumenau, Santa Catharina, in monte de Coceiro, *Schenck 644* (photo. of type ex herb. Berol.). Without locality, *H. Mosén* (herb. Paris). Serra de Caracol, São Paulo, December, 1873, *Mosén 1372* (herb. Stockholm; probably the same collection as the last preceding one).

Sickingia corumbensis, sp. nov.—Frutex arborescens vel arbor parva usque ad 4 m. alta, ramulis crassiusculis rigidis ferrugineis rimosis, novellis sparse minute adpresso-pilosulis, internodiis abbreviatis; stipulae deciduae erectae anguste triangulares dorso adpresso-pilosulae; folia mediocria breviter petiolata opposita crasse papyracea,

petiolo gracili 7–9 mm. longo glabro; lamina late elliptica vel rotundato-elliptica, interdum obovato-rotundata, 7.5–14.5 cm. longa, 5.5–10 cm. lata, acutiuscula vel apice rotundata et brevissime obtuse producta, basi rotundata, interdum breviter decurrens vel brevissime cordata, supra in sicco viridis, glabra, costa venisque prominulis, venulis prominulis et arctissime reticulatis, subtus paullo pallidior glabra vel ad costam minute pilosula, costa gracili elevata, nervis lateralibus utroque latere c. 16 in axillis minute barbatis gracillimis prominentibus angulo latiusculo adscendentibus obliquis juxta marginem conjunctis, nervulis prominentibus arctissime reticulatis; inflorescentiae axillares cymoso-paniculatae dense multiflorae 2.5–3 cm. longa et aequilatae congestae 2.5–3.5 cm. longe pedunculatae, floribus sessilibus vel interdum breviter pedicellatis, bracteis subpersistentibus late ovatis acutis 1.5–2 mm. longis; hypanthium oblongo-turbinatum 3 mm. longum sparse strigillosum; calyx late campanulatus 2.5–3 mm. longus viridis sparse strigillosus interdum uno latere subfissus, margine irregulariter breviter obtuse lobato; corolla in alabastro clausa ellipsoidea extus densissime lutescenti-sericea apice obtusa 6–7 mm. longa, in anthesi fere ad basin lobata, lobis late oblongis obtusis intus glabris recurvis, tubo lato fauce dense longe barbato; stamina longiexserta, filamentis gracilibus sparse longipilosis, antheris flavis oblongis 2.5 mm. longis; capsula globosa 2 cm. diam. basi et apice late rotundata pallide brunnescens brevissime irregulariter tuberculata.—Brazil: In silva subruderali clara, Corumbá, State of Matto Grosso, December 20, 1902, *G. O. A. Malme 2733* (herb. Stockholm, type); April 9, 1903, *Malme* (S).

A well-marked species, not likely to be confused with any other known from Brazil. The leaves resemble those of *Sickingia erythroxylon* Willd., of Venezuela.

Sickingia mollis, sp. nov.—Ramuli crassiusculi teretes rimosi et lenticellati dense hispiduli, internodiis brevibus; stipulae non visae; folia mediocria breviter petiolata subcoriacea in sicco fusca, petiolo crasso 7–10 mm. longo dense velutino-pilosulo; lamina late elliptica vel late obovato-elliptica circa 15 cm. longa et 9 cm. lata acuta et breviter caudato-acuminata, acumine angusto attenuato fere 1 cm. longo, basin versus paullo angustata, basi ipsa rotundata et breviter cordata, supra glabra, costa nervisque impressis, subtus pallidior, ubique densissime velutino-pilosula, costa elevata, nervis lateralibus utroque latere c. 15 gracilibus elevatis fere rectis, infimis angulo fere recto abeuntibus, superioribus angulo semirecto adscendentibus, venulis obscuris; inflorescentia terminalis crasse 1 cm. longe pedunculata, multiflora condensata et capitiformis, floribus sessilibus, bracteis parvis deciduis; hypanthium densissime pilosulum 3 mm. longum; calyx membranaceus late campanulatus 6–8 mm. longus et aequilatus dense pilosulus profunde lobatus, lobis late ovatis obtusis ciliatis; corolla in alabastro extus dense tomentosa. —Colombia: Without locality, *José Celestino Mutis 1126* (U. S. Nat. Herb. No. 1,560,239, type; fragm. in herb. Field Mus.).

The relationship of the tree here described is clearly with *Sickingia cordifolia* Hook. f., likewise Colombian, but that differs in having leaves that are glabrous or at least glabrate at maturity, an open inflorescence, and a short calyx.

Sipanea carnea Neumann, Rev. Hort. II. 2: 445. 1844.

This is the only plant assigned to the genus *Sipanea* that is not a native of tropical America. Wernham, in his account of the species of *Sipanea* (Journ. Bot. 55: 171. 1915), mentions *Sipanea carnea*, but makes no attempt at a disposition of it, stating that Martius (in *Flora Brasiliensis*) "leaves it without mention, possibly because this species was based on a plant grown from seed sent from an unnamed locality in South America."

In the Delessert Herbarium there are several sheets of *Sipanea carnea* which make it possible to determine its status. In fact, its position already had been indicated properly, as may be found by consulting Oliver's *Flora of Tropical Africa* (3: 46. 1877). There, it is true, the name *Sipanea carnea* is credited to "Hort. ex Hook.," but that name doubtless relates to the same cultivated plant as *Sipanea carnea* Neumann. The plant is listed in the work cited as *Pentas carnea* Benth., for which the proper name is really *Pentas lanceolata* (Forsk.) Schum.

The Delessert Herbarium specimens, all of which evidently are conspecific, are the following: Hort. Paris, July, 1844, labeled *Sipanea carnea*. Jardin de Passy, June, 1845, "*Sipanea carnea* Ad. Brong." "Iles Maurice, de Madagascar et Comorres," in 1838, *Macwilliam*, "*Sipanea carnea* Brongn." Martinique, environs de Saint Pierre, in 1853, *Belanger 611*.

The plant is a native of eastern tropical Africa. In Martinique it is or has been in cultivation, and perhaps has become naturalized. At any rate, *Sipanea carnea* need receive no further consideration in treating of American Rubiaceae.

Sphinctanthus microphyllus Schum. in Mart. Fl. Bras. 6, pt. 6: 354. 1889.

The species was based upon *Riedel 942* and *1201* from Matto Grosso, Brazil. A specimen of the latter number is in the herbarium of Field Museum. Clearly conspecific are the two following Brazilian collections: Cuyabá, Matto Grosso, in silva clara temp. pluv. plus minusve inundata, June, 1902, *G. O. A. Malme 1872* (herb. Stockholm); a shrub up to 2 meters high; fruits yellow. Cuyabá, in dumetis temp. pluv. plus minusve inundatis prope flumen Cuyabá, November, 1902, *Malme 1872a;* in flower.

Stachyarrhena pedicellata, sp. nov.—Omnino glabra, ramulis crassis teretibus fusco-ferrugineis rimosis interdum vernicosis, internodiis brevibus; stipulae persistentes erectae in vaginam truncatam ciliolatam 4 mm. longam connatae; folia breviter petiolata opposita crasse coriacea, petiolo crasso 7–10 mm. longo; lamina oblongo-obovata 7–11.5 cm. longa 3.5–5.5 cm. lata obtusa vel subobtusa, interdum brevissime obtuse protracta, basin versus breviter angustata, basi ipsa acuta, supra in sicco fusco-nigrescens, lucida, costa venisque non elevatis, subtus sublucida, pallide brunnescens, costa crassiuscula elevata, nervis lateralibus utroque latere c. 10 gracilibus prominulis angulo latiusculo adscendentibus fere rectis juxta marginem conjunctis, nervulis obscuris arcte reticulatis; inflorescentia terminalis racemoso-paniculata sessilis pauciramosa c. 8 cm. longa, racemis paucis inferne nudis supra paucifloris, floribus pedicellatis vel interdum sessilibus, pedicellis crassiusculis usque ad 5 mm. longis saepe recurvis; calyx floris masculi late campanulatus c. 5 mm. longus et 7 mm. latus truncatus apice subcontractus; discus valde incrassatus; corolla in alabastro apice late obtusa extus glabra; cetera ignota.—Colombia: Without locality, *Justin Goudot* (herb. Paris, type).

The present plant, although almost certainly referable to *Stachyarrhena,* differs from the few other members of the genus in having pedicellate flowers. The genus has been known heretofore from Panama and from Amazonian Brazil. The present species, therefore, helps to fill the gap in the previously indicated range of the genus.

Tocoyena (?) tabascensis, sp. nov.—Ramuli graciles fusces-centes lenticellis pallidis notati; stipulae deciduae lanceolatae longissime attenuatae fere 2 cm. longae erectae glabrae; folia majuscula petiolata opposita membranacea, petiolo gracili 3–3.5 cm. longo sparse hispidulo vel glabrato; lamina late oblongo-elliptica c. 20 cm. longa et 10.5 cm. lata acuta basi subrotundata vel acutiuscula, supra in sicco fusca, ad venas sparse pilosula, aliter glabra, costa venisque vix prominentibus, subtus paullo pallidior, sparse ad venas hispidula, costa gracili elevata, nervis lateralibus utroque latere c. 11 gracillimis prominentibus angulo latiusculo adscendentibus obliquis leviter curvis marginem attingentibus, nervulis prominulis laxe reticulatis; inflorescentia ut videtur terminalis cymosa et triflora vel trichotoma cum ramis trifloris, longe pedunculata et basi foliaceo-bracteata, floribus sessilibus vel 1 cm. longe pedicellatis, pedicello glabro apice bibracteolato, bracteolis oppositis oblongis glabris foliaceis 6 mm. longis; hypanthium late obovoideum 2.5 mm. longum glabrum; calyx 4-partitus, lobis late rotundatis ciliolatis c. 4 mm. longis; corolla extus glabra hypocrateriformis, tubo 2.5–4.5 cm. longo medio 3 mm. lato intus dense piloso, supra paullo dilatato, fauce usque ad 6 mm. lato, lobis 4 patentibus late obovato-rotundatis c. 12 mm. longis intus glabris in alabastro ut videtur imbricatis; antherae sessiles in fauce insertae lineares 6 mm. longae inclusae; stylus filiformis glaber 1.5 cm. longus, ramis 2 linearibus 6 mm. longis.—

Mexico: Paso de Espejo, Tabasco, November 25, 1888, *J. N. Rovirosa 301* (herb. Kew., type).

Vernacular name, "popiste" or "popixtle."

The proper position of this Mexican plant is decidedly uncertain. I do not believe that it belongs in *Tocoyena*, but it appears equally alien in any of the other American genera of Rubiaceae. The ovary is 2-celled and multiovulate, but the flowers are so young that nothing more can be guessed as to the nature of the fruit. The tribal position of the plant, therefore, may only be surmised, and it may well be that the plant belongs in some other tribe than the *Mussaendeae*. It is probable that it represents an undescribed genus, but until more complete material may be had for study, I am unwilling to describe it as such.

COMPOSITAE

Alomia microcarpa (Benth.) Robinson, f. **Torresii**, forma nov. A forma typica corollis albis differt.—Costa Rica: La Pitahaya, Province of Cartago, 1931, *Rubén Torres Rojas 196* (herb. Field Mus. No. 650,667, type).

One of the most beautiful sights of the Meseta Central of Costa Rica, especially in the vicinity of Cartago, consists of the wide fields and pastures that at certain seasons of the year become almost solid sheets of blue because of the abundance of Santa Lucía, a plant well known to all Costa Ricans. This handsome flower is almost exactly like the ageratum that is so common in northern gardens. I do not remember ever to have seen in Costa Rica white-flowered plants of Santa Lucía, and probably the albino form here named is a rare one.

Chrysactinia pinnata Wats. Proc. Amer. Acad. 25: 154. 1890; Rydb. N. Amer. Fl. 34: 181. 1916.

Of named material referable to this species I have seen only Pringle's original collection, from Monterrey, Nuevo León, and Rydberg reports the species only from Nuevo León. The following recent collections have come to the writer's attention: Tamaulipas: Sierra near Jaumave, January, 1932, *H. W. von Rozynski 316*. Near San Vicente, Jaumave, January, 1932, *von Rozynski 317*.

Lepachys columnifera (Nutt.) Macbride, f. **pulcherrima** (DC.), comb. nov. *Obeliscaria pulcherrima* DC. Prodr. 5: 559. 1836. *L. columnaris* (Pursh) Torr. & Gray, var. *pulcherrima* Torr. & Gray, Fl. N. Amer. 2: 313. 1842.

The typical form of the species has bright yellow rays. Quite as common, usually, is the form whose rays are partly or wholly

brownish purple. This is merely a color variant, and therefore best treated as a form rather than a variety.

Liatris elegans Willd. f. **Fisheri,** forma nov.—A forma typica floribus bracteisque ad apicem pallide luteis differt.—Texas: Copperas Cove, on hillsides near and on the highway, August 26, 1934, *George L. Fisher 3456* (herb. Field Mus., type).

While white-flowered forms have been reported for various species of *Liatris*, and are not especially rare in some regions, yellow-flowered forms apparently are decidedly rare. The collector states that both the flowers and the long petal-like tips of the bracts are lemon-yellow in color.

Perezia nana Gray.—In Mexico this common and characteristic plant of the sandy desert regions is reported from the states of Sonora, Chihuahua, and Coahuila by Bacigalupi (Contr. Gray Herb. 97: 49. 1931). It occurs also in Durango, as attested by a specimen in the herbarium of Field Museum: Indé, Durango, November, 1927, *B. P. Reko 5292.*

Perezia nudicaulis Gray.—In the *Monograph of the Genus Perezia,* Section *Acourtia,* published recently by Bacigalupi (Contr. Gray Herb. 97. 1931), this species is reported in Central America only from Guatemala and Salvador. Another country may be added to the area of distribution upon the basis of the following collections: Honduras: Vicinity of Siguatepeque, Dept. Comayagua, in pine forest, 1080–1400 meters, February, 1928, *Standley 56235, 55861.* Llano de la Puerta, near Copán, 900 meters, January, 1907, *Pittier 1829.* The plant is frequent in the grassy pinelands on the hills about Siguatepeque. The flower heads are white.

Mr. Bacigalupi's otherwise excellent account of the Mexican species of the genus *Perezia* might have been improved substantially by the citation of the ample collections in the United States National Herbarium. That collection contains by far the greatest number of specimens from Mexico and Central America to be found in any herbarium of the world, and any monograph of a group of plants represented in those regions of tropical America must remain pitifully incomplete unless the National Herbarium collections are taken into account. Failure to examine them in the case of eastern botanists engaged in monographic work scarcely can be excused upon the ground of inaccessibility of Washington, and moreover the policy of the National Museum always has been uniformly generous in lending material for monographic studies.

Schistocarpha oppositifolia (Kuntze) Rydb.—This essentially tropical species is widely distributed in tropical America, and according to Rydberg in his account of the genus (N. Amer. Fl. 34: 306. 1927) it extends northward to San Luis Potosí. A recent collection shows that it occurs, rather unexpectedly, also in Tamaulipas: Jaumave, stony river valley, September 30, 1931, *H. W. von Rozynski 76.*

Vernonia angusta (Gleason), comb. nov. *Eremosis angusta* Gleason, N. Amer. Fl. 33: 98. 1922.

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